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THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Teller et al.

Serial No. 09/595,660

Filed: June 16, 2000

Art Unit: 3626

Patent Examiner: Natalie Pass

Our Ref: 1148/015

SYSTEM FOR MONITORING  
HEALTH, WELLNESS AND  
FITNESS

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

August 23, 2006

**RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF**

Applicants hereby respond to the Notice of Non-Compliant Appeal Brief issued July 25, 2006 ("Notice"), and file a Supplemental Brief herewith to correct the alleged deficiencies cited in the Notice.

In accordance with 37 C.F.R. 1.8(a), I hereby certify that I have a reasonable basis to expect that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope bearing sufficient postage and addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

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Signature

First, the Notice alleges that the brief “fails to address each independent claim with a concise explanation of the subject matter of each independent claim involved in the appeal.” Applicants respectfully disagree. Section V captioned “Summary of the Invention” contains an explanation of each of the elements common to claims 104 and 124 with references to the relevant portion of the specification. For the sake of efficiency and brevity, the discussion combines the concise explanation for claims 104 and 124, the two independent claims at issue, because those claims contain many elements in common. Applicants approach is clearly explained in footnote two in which Applicants state:

There are two independent claims in this application: claims 104 and 124. Claim 124 differs from claim 104 in that it recites a different “communicating” step, which will be discussed below. The discussion, therefore, incorporates the elements of both independent claims, and any dependent claims where necessary.

Therefore, Applicants submit that they have complied with this requirement. Nevertheless, Applicants have submitted a Supplemental Appeal Brief, which restates the independent claims and provides reference to the specification for each claim element.

Next, the Notice states that the brief fails to identify every means plus or step plus function under 35 U.S.C. 112 in the claims. Applicants’ response is that there are none. Since there are none, none were identified.

Finally, Applicants have added an Appendix of Evidence and an Appendix of Related Appeals and Interferences (which states that there are no related appeals and interferences).

Thus, Applicants contend that the Brief is in condition for the Board’s consideration. No additional fee is believed necessary to file this Supplemental Appeal Brief. If this

assumption is incorrect, authorization is given to charge the necessary fee to Deposit Account No. 50-0526.

Respectfully submitted,

TELLER, ET AL.

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**SUPPLEMENTAL APPEAL BRIEF**

Applicants submit the following Supplemental Appeal Brief in response to the Notice of Non-Compliant Appeal Brief of July 26, 2006 ("Notice"). This Supplemental Brief supplements the Appeal Brief filed May 15, 2006, which was filed in response to the Final Office Action of March 13, 2006 ("Office Action"), which finally rejected claims 104-127, 137-152, 161-164, 167, 171, 172, and 175-182 of the above-referenced application. Applicants timely filed a Notice of Appeal on March 16, 2006.

In accordance with 37 C.F.R. 1.8(a), I hereby certify that I have a reasonable basis to expect that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope bearing sufficient postage and addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

August 23, 2006

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Barry I. Friedman

Name of Person Signing

Signature



### **I. Real Party in Interest**

The real party and interest is BodyMedia, Inc. BodyMedia, Inc. is a Delaware corporation with a principal place of business of 4 Smithfield Street, 11<sup>th</sup> Floor, Pittsburgh, PA 15222. BodyMedia, Inc. is the assignee of the above-referenced patent application.

### **II. Related Appeals and Interferences**

There are no appeals or interferences related to this application.

### **III. Status of Claims**

Claims 1-103, 128-136, 153-160, 165, 166, 168-170, 173, and 174 have been cancelled. Thus, claims 104-127, 137-152, 161-164, 167, 171, 172, and 175-182 are pending in this application. The Examiner has rejected each of the above-pending claims, and the Applicants are appealing all the rejections.

### **IV. Status of Amendments**

All amendments presented in the case have been entered.

## **V. Summary of the Claimed Subject Matter<sup>1</sup>**

### **A. Brief Summary**

The invention is a method to enable an individual to achieve an improved state of health.

The invention monitors physiological parameters of the individual and obtains data related to the individual's life activities. The invention analyzes the physiological parameters and life-activities data in order to provide the individual with information regarding his or her progress toward a health-related goal. In this way, the invention provides actionable health-related suggestions and information to the individual.<sup>2</sup>

The claims subject to this appeal are directed toward an embodiment comprising a method for assisting an individual to monitor, control, and modify certain aspects of the individual's physiological status according to a preset physiological status goal (Specification, page 25, lines 11-17) while the individual is wearing a physiological monitoring device (Specification, page 7, lines 1-3).<sup>3</sup> The wearable physiological monitoring device generates parametric data of the individual and can be worn on the individual's body as part of an armband, form fitting shirt or the like. (Specification, page 7, lines 1-3). Examples of such parameters generated by the

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<sup>1</sup> The Summary of the Claimed Subject Matter begins with a summary explanation of the claims. At the end of the Summary the independent claims are reprinted with citations to the specification for each element.

<sup>2</sup> This Application has been routed to the e-commerce art unit 3626, which is a business methods patent examining unit. As will be shown herein, the invention is not a "business method" according to current parlance. To the extent that this application has been examined under a different set of internal standards or rules which the USPTO applies to "business methods", the Applicants respectfully submit that application of such rules is inappropriate.

<sup>3</sup> There are two independent claims in this application: claims 104 and 124. Claim 124 differs from claim 104 in that it recites a different "communicating" step, which will be discussed below. This discussion, therefore, incorporates the elements of both independent claims, and any dependent claims where necessary.

wearable device are the individual's heart rate, pulse rate, beat-to-beat heart variability, EKG or ECG, respiration rate, skin temperature, core body temperature, heat flow off the body, galvanic skin response ("GSR"), EMG, EEG, EOG, blood pressure, body fat, hydration level, activity level, oxygen consumption, glucose or blood sugar level, body position, pressure on muscles or bones, and UV radiation absorption. (Specification, page 7, lines 8-13).

One of the steps of the claimed method is to establish a physiological status goal according to certain physiological status parameters of said individual. (Specification, page 22, line 12 to page 23, line 17). In another step, the wearable device generates data indicative of a *first* parameter of said individual. The first parameter may be one of the parameters described in the preceding paragraph. In another claimed step, the method recites generating data indicative of a *second* parameter of said individual. The generation of the *second* parameter may be done by the wearable device (Specification, page 7, lines 8-13), or a second device. Second devices generating the data indicative of a second parameter could include, for example, a weight scale, iStat blood analyzer, blood pressure sensor, or a personal digital assistant with a sensing device incorporated therein. (Specification, page 14, lines 3-22). According to each independent claim, the first and second parameters are produced by at least one of said individual's body and the environment adjacent said individual's body (Specification, page 7, lines 8-20; Specification, page 10, line 5 to Specification, page 11, line 6).

The method also provides for receiving data related to the life activities of the individual, and generating individual status information relating to the individual from the life-activities data.<sup>4</sup> (Specification, page 15, lines 1-3; page 4, lines 3-5).

The invention also claims the step of *calculating*, from the *first and second parameters*, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal. Note that the calculation requires *both* first and second parameters. Thus, the particular embodiment of the invention utilizes at least two parameters in the calculation of the quantitative status information. (See, e.g., Specification, page 29, lines 5-11; See also Table 2).

The method also provides for the communication of the calculated status information to a recipient. The claimed "communicating" can be done a number of ways, for example, through the web pages shown in Figures 5-11. (Specification page 24, lines 17-20). Claim 124 recites a different communicating step, which is as follows: communicating to a recipient said calculated quantitative status information *indicative of a suggested change in said individual's performance* to assist said individual in the achievement of said physiological status goal. (Specification, page 34, line 22 to page 35, line 9). Thus, the information communicated to the individual is meant to suggest to her that she modify her performance to reach her physiological status goal.

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<sup>4</sup> This limitation is in independent claim 104 and claims depending therefrom only.

**B. Direct Mapping of Independent Claim Elements to Specification<sup>5</sup>**

A direct mapping of the elements of the independent claims to the specification is as follows:

104. (Rejected) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal (Specification, page 25, lines 11-17), said individual wearing a wearable physiological monitoring device (Specification, page 7, lines 1-3), the method comprising:

establishing said physiological status goal according to certain physiological parameters of said individual; (Specification, page 22, line 12 to page 23, line 17)

generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device; (Specification, page 22, line 12 to page 23, line 17 and Table 1)

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device; (Specification, page 7, lines 8-13, page 14, lines 3-22, and page 22, line 12 to page 23, line 17, and Table 1)

receiving data related to the life activities of said individual; (Specification, page 15, lines 1-3; page 4, lines 3-5).

calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said

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<sup>5</sup> Applicants have presented the Summary in two parts primarily in response to a Notice of Non-Compliant Brief issued by the Examiner on July 27, 2006. Specifically, the Examiner alleged that the Summary, which was identical to Part V(A) of this brief, failed to address each independent claim with a concise explanation of the subject matter of each independent claim. Applicants respectfully disagree with the Examiner, since as can be seen from Section V(A) – there is, indeed, a concise explanation of the independent claims with reference to the specification for each claim element. Nevertheless, Applicants have chosen to reprint the claims and again cite the specification for the support of each element. While Applicants believe this measure is unnecessary and redundant, Applicants hope the redundancy will allow the case to proceed to the Board.

individual's performance with relation to said physiological status goal; .  
(See Specification, page 29, lines 5-11; See also Table 2)

generating individual status information relating to the status of said individual from said life activities data; (Specification, page 15, lines 1-3; page 4, lines 3-5). and

communicating to a recipient said calculated quantitative status information regarding said individual and said individual status information, (Specification page 24, lines 17-20).

wherein said first and second parameters are produced by at least one of said individual's body and the environment adjacent said individual's body. (Specification, page 7, lines 8-20; Specification, page 10, line 5 to Specification, page 11, line 6)

124. (Rejected) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal (Specification, page 25, lines 11-17), said individual wearing a wearable physiological monitoring device (Specification, page 7, lines 1-3)., the method comprising:

establishing said physiological status goal according to certain physiological parameters of said individual; (Specification, page 22, line 12 to page 23, line 17)

generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device; (Specification, page 22, line 12 to page 23, line 17 and Table 1)

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device;

(Specification, page 7, lines 8-13, page 14, lines 3-22, and page 22, line 12 to page 23, line 17, and Table 1)

calculating, directly from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal; (See Specification, page 29, lines 5-11; See also Table 2) and

communicating to a recipient said calculated quantitative status information indicative of a suggested change in said individual's performance to assist said individual in the achievement of said physiological status goal, (Specification, page 34, line 22 to page 35, line 9)

wherein said first and second parameters are produced by at least one of said individual's body and the environment adjacent said individual's body. (Specification, page 7, lines 8-20; Specification, page 10, line 5 to Specification, page 11, line 6)

## **VI. Issues**

Applicants present the following issues:

- A. Does Mault et al., U.S. Pat. No 6,790,178 (“Mault”) fail to anticipate claims 104-121, 124-127, 137-152, 161-64, 167, 171-172, and 175-182 the under 35 U.S.C. § 102(e)?**
- B. Does Mault in view of Brown et al., U.S. Pat. No. 5,913,310 (“Brown”) fail to render claims 122 and 123 obvious under 35 U.S.C §103?**

Applicants answer each of the above in the affirmative.

## **VII. Grouping of Claims**

The Examiner has rejected claims 104-121, 124-127, 137-152, 161-64, 167, 171-172, and 175-182 under 35 U.S.C. §102(b). These claims do not stand or fall together. Applicant has grouped the claims according to common patentable limitations below. Explanations of why each particular claim, or grouping of claims, is separately patentable are included below in Section VIII.

The Examiner has rejected claims 122 and 123 under 35 U.S.C. 103(a). These claims stand or fall together, and Applicants respectfully submit that the Board decide the appeal on the basis of claim 122.

## **VIII. Argument**

### **A. Introduction**

For nearly six years this application has been pending. Throughout this time, Applicants have presented argument after argument and amendment after amendment to distinguish the claimed invention from numerous references applied by the Examiner to reject the claims. Within



the past several months, Applicants have had to contend with a new volley of references. Applicants have successfully distinguished the invention from each of these references, based upon concessions or admissions of the Examiners, but each time Applicants overcome a reference, the Examiner identifies another reference as a basis for rejection. For example, over the past several months, the Examiner agreed to withdraw U.S. Pat No. 5,951,300 to Brown (“Brown300”), which had previously been applied as a reference. (Interview Summary, July 12, 2005, attached hereto as Exhibit A). With agreement reached on Brown300, Applicants expected allowance; however, the Examiner then provided Applicants with three more references to consider: U.S. Pat. No. 6,808,473 to Hisano et al. (“Hisano”), U.S. Pat No. 5,730,140 to Fitch (“Fitch”), and U.S. Pat. No. 5,941,837 to Amano et al. (“Amano”). Hisano, as it turned out, was not prior art, and Fitch was deemed inapplicable. (See Amendment filed June 16, 2005, pp. 30-31, attached hereto as Exhibit B). With respect to Amano, Applicants spent a great deal of time, effort, and resources to distinguish the claimed invention from Amano in the two subsequent responses. (See Exhibit B, page 31; and Revised Amendment filed February 17, 2006, pp. 28-32, attached hereto as Exhibit C). After what appeared to be a productive interview with the Examiner and after submitting cogent arguments with respect to Amano in the February 17<sup>th</sup> Amendment, Applicants were again confident that allowance was imminent. Yet, as has been the unfortunate pattern in this examination, the Examiner discovered another reference and deemed Applicants arguments with respect to Amano “moot” in light of new grounds of rejection on the newly-discovered reference: U.S. Pat. No 6,790,178 to Mault (“Mault”). (See Office Action, attached hereto as Exhibit D). Frustratingly, the “newly-discovered” reference was not at all new, and should have been discovered a half of a year earlier because the Applicants submitted

Mault as part of an Information Disclosure Statement in September 2005, six months before the final office action of March 13, 2006 and one month before the preceding final office action. (See IDS, September 13, 2005, attached hereto as Exhibit E). As discussed below, Mault is cumulative of the other references cited by the Examiner. Further, it does not support the rejections under 35 U.S.C. §§102 and 103.

**B. Mault Fails to Anticipate the Claimed Invention under 35 U.S.C. § 102(e).**

1. A brief description of Mault<sup>6</sup>

The invention in Mault is directed toward providing physiological sensing devices that communicate and are controlled by personal digital assistants (“PDAs”). Mault laments that the “stand-alone” nature of various physiological monitoring devices, including indirect calorimeters, EKG monitors, pedometers, body fat measuring devices and the like cause such devices to be “expensive and potentially bulky.” (Mault, Col. 2, line 27). Mault’s aim is to provide physiological monitoring equipment that could communicate with hand-held equipment, thus eliminating the need for expensive and bulky stand-alone devices. Mault’s inventors also surmise that the ubiquity of personal computing devices (“PDAs”) creates an opportunity to provide various physiological monitoring accessories to a broad base of users. (Mault, Col. 1, lines 46-49). According to Mault, the PDA could act as a control and display device for many different kinds of physiological monitoring accessories. (Mault, Col. 1, lines 50-54).

The claimed invention, however, differs from Mault in that it is not simply a method of configuring physiological monitors to communicate with PDA’s. Further, the claimed invention

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<sup>6</sup> Applicants have attached Mault hereto as Exhibit F for the Board’s convenience.

is not simply a method of providing to a user his or her raw physiological parametric data.

Rather, the claimed invention is concerned with providing actionable, analytical information to an individual regarding: (a) the individual's status relative to the individual's physiological goal, and/or (b) suggested changes in said individual's performance using a calculation involving two of the identified parameters.

2. Claims 104 -109, 147-149, 167, 175, 177, 179, and 181

Claim 104 is the first of two independent claims in the application. Claim 104 contains patentable limitations separate from that of independent claim 124, as is discussed herein. Claims 105-109, 147-149, 167, 175, 177, 179, and 181 either directly or indirectly depend on representative claim 104 and, as such, contain all of the patentable limitations of claim 104 discussed below. Claim 104 recites a method comprising the following steps:

establishing said physiological status goal according to certain physiological parameters of said individual;

generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device;

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device;

receiving data related to the life activities of said individual;

***calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal;***

generating individual status information relating to the status of said individual from said life activities data; and

communicating to a recipient *said calculated quantitative status information* regarding said individual and said individual status information,

wherein said first and second parameters are produced by at least one of said individual's body and the environment adjacent said individual's body.

Applicants will focus their arguments on the bold and italicized elements above.<sup>7</sup>

Mault does not anticipate claim 104 because Mault does not disclose the claimed step of *calculating*, from said *first and second parameters*, quantitative status information *indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal*. In the Office Action (Exhibit D), the Examiner cites to Mault, Col. 6, line 61 to Col. 7, line 11 as anticipating this limitation. An excerpt of that cited section in Mault reads:

The health management software may include the ability to set up a variety of fitness plans and to track adherence to the plans. For example, a particular user may specify that they will walk or run a certain number of times and for a certain distance each week. The software may then prompt the user to remind them that, according to the schedule, they should run or walk a certain distance on a particular day. The person uses a pedometer module, either on its own or mated with a PDA, to measure their performance during a run or walk. This data is transferred into the PDA and used by the software to determine how the person's performance compares with to their goals. (emphasis added).

Essentially, the above passage discloses software that sets up a fitness plan and prompts a user to adhere to the plan. The user is then able to measure a walk or a run with a pedometer. The software uses the pedometer data to determine if the user performed the scheduled exercise. If he did not, he is reminded to walk or run according to the schedule. Mault does not disclose any

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<sup>7</sup> By focusing their argument on the bolded and italicized claim limitations, the Applicants are not admitting that Mault anticipates the other claim limitations in claim 104.

*quantitative status information indicative of the relative degree of achievement* as claimed. That is, there is no mention of degrees of achievement, there are only reminders to run or walk according to a schedule. Moreover, no matter what kind of information results from Mault, i.e., a prompt or a reminder, the information is not *calculated* from *two parameters* produced by the individual's body or the environment adjacent to the body as claimed. Mault simply discloses the use of one parameter to determine whether a reminder should be sent to the user to complete a scheduled exercise.<sup>8</sup>

In the remainder of the Mault passages cited by the Examiner, Mault goes on to disclose that it “may be preferable to track other factors such as blood pressure, heart rate, or blood glucose” as part of the fitness and management program. (See Mault, Col. 7, lines 6-8). But Mault does not disclose performing any operation, including the claimed *calculation*, on these tracked parameters. There is other similarly deficient disclosure in the Mault reference. For example, Mault discloses a pedometer module in which data from only one parameter, the pedometer, is used to make an approximation of running distance, running speed, and other exercise factors. (See Mault, Col. 11, lines 60-63). Mault also discloses that various exercise parameters calories burned can be calculated from one parameter, the pedometer data (See Mault, Col. 12, lines 14-23). To the extent that Mault discloses the utilization of two parameters, Mault only discloses a second parameter as an alternative, or as an additional parameter that would be

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<sup>8</sup> Applicants made this same argument to the Examiner in a previous office action, albeit with respect to the Amano reference. (See Exhibits B and C). This supports Applicants' contention that Mault merely discloses providing status information from one parameter, which is cumulative of the prior art previously cited in this examination by both the Examiner and Applicants. Applicants have previously overcome a reference, i.e., Amano, which discloses some sort of status information resulting from one parameter. (See Exhibits B and C). Indeed, Applicants have submitted other references in their Information Disclosure Statement that disclose providing status information based on one parameter. Notably, Applicants submitted the Mault reference in an Information Disclosure Statement in September 2005 (Exhibit E), one month before the office action prior to the one being appealed. As such, Mault is cumulative. It adds nothing new to the Examination, except for more cost and delay for the Applicants.

“useful” to record. (See Mault, Col. 20, lines 7-11). Mault does not disclose the combined use of the parameters in a calculation which results in *quantitative status information indicative of the relative degree of achievement* as claimed. ((See Mault, Col. 13, lines 31-40) (disclosing the use of a second parameter, calorimeter data, to calibrate a pedometer)).

Accordingly, the rejection of claim 104 is overcome and reversal of the rejections of claims 104-109, 147-149, 167, 175, 177, 179, and 181 is respectfully requested.

3. Claims 110 – 114, 117-119, 171, and 177

Claim 110, and its dependent claims 111-114 and 117-119, 171, and 177 directly or indirectly depend from independent claim 104. Claims 171 and 177 do not depend from claim 110, but depend from claim 104, and contain the same limitation as discussed below. Thus, the arguments with respect to claim 104 are incorporated herein, and if claim 104 is allowable, so too are claims 110-114, 117-119, 171, and 177.

Claim 110 represents the claims of this group. Claim 110, and the other claims of this group, are grouped separately because they recite an additional limitation of *generating derived data based on said data indicative of a first parameter and said data indicative of a second parameter of said individual*. Thus, according to this claimed embodiment, derived data must be generated from a *first and a second* parameter. (See, e.g., Table 2 in specification, which lists types of derived information, and the parameters used for deriving that information).

The Examiner cites Mault, Col. 12, lines 13-24 for anticipating this limitation. However, the cited excerpt only discloses the calculation of various exercise parameters, such as calories burned, distance covered, average speed and the like from one parameter: data from a pedometer.

Mault does disclose alternative data that can be used to determine calories burned and the like, but Mault does not disclose using more than one parameter, for calculating any resultant data, for example, calories burned, distance covered or average speed. Accordingly, the rejections of claim 110, and its dependent claims 111-114 and 117-119 are improper and the claims are allowable. Claims 171 and 177 which contain the limitation discussed above are similarly allowable.

With respect to claim 177 in particular, the that claim requires communicating the data indicative of both first and second parameters to a central monitoring unit, wherein the central monitoring unit performs the calculation of quantitative status information from both parameters.<sup>9</sup> Mault only discloses a “remote” server, but not one that performs the claimed calculation as discussed above. Accordingly, Mault does not anticipate claim 177.

#### 4. Claims 115 and 120

Claims 115 and 120 each depend indirectly from claims 110 and 104. If claims 110 and 104 are allowed, claims 115 and 120 are similarly allowable. Claims 115 and 120 indirectly depend from claim 110 and as such require the claimed limitation of *derived data*. As discussed above, *derived data*, according to this claimed embodiment of the invention, again requires two parameters. Claims 115 and 120 are grouped separately, however, because each recite that the derived data further comprises *data relating to calories burned* that is *generated using at least*

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<sup>9</sup> Claim 177 recites the term “commutating.” This is a typographical error. The term is meant to be “communicating,” which clearly is consistent with the disclosure and the other claims. Applicants respectfully request that the Board instruct the Examiner to either allow the Applicants to make the appropriate correction to the term, or to make the correction through an Examiner’s amendment prior to allowance should the Board deem the claims allowable.

*said data indicative of motion and said data indicative of heat flow.* According to claim 115, the *data indicative of heat flow* is generated by the claimed *heat flux sensor*.

Mault contains no disclosure of utilizing data indicative of heat flow along with data indicative of motion to derive calories burned. Respectfully, the Examiner errs by interpreting Mault's disclosure of a "temperature sensor" to read on the claimed *heat flux sensor*. As described in the specification, the claimed *heat flux sensor* is distinct from a temperature sensor in that it produces *data indicative of heat flow*, which is distinct from data indicative of an individual's temperature. (See Specification, page 7, line 10; Table 1; Table 2; page 24, line 11; Fig. 9; page 31, lines 5-9). The specification makes clear that heat flow is not an individual's skin temperature or core body temperature because the specification treats heat flow, skin temperature, and core temperature separately. (See Specification, page 24, lines 12-16, stating: "[S]kin temperature, heat flow, beat-to-beat heart variability, heart rate, pulse rate, respiration rate, core temperature, galvanic skin response ... can be used to provide indicators to the user of his or her sleep patterns over a desired time period"). As such, Mault does not anticipate claims 115 or 120 because both require the generation of data related to calories burned from the claimed *data indicative of heat flow*.

Further, none of the passages cited by the Examiner disclose the use of *data indicative of heat flow together* with *data indicative of motion* to derive calories burned. For example, Mault, Col. 12, lines 14-16 discusses determining calories burned from one parameter only, a pedometer. Mault at Col. 20., lines 7-11, discloses that, in a separate embodiment, a skin mounted heart rate monitor may also contain a temperature sensor, because such information "is



useful to record within a calorie management system.” Moreover, accepting, *arguendo*, the Examiner’s interpretation that Mault does disclose data indicative of heat flow, Mault still does not anticipate the claim because Mault only discloses: (1) that heart rate data and temperature data are “useful to record” in a calorie management system; and (2) that a heart rate monitor of the type described in Mault can comprise a “micro machined activity monitor,” which would similarly be “useful” in a physical fitness program, cardiac rehabilitation program or the like. The mere mention that other parameters would be “useful” is not sufficient to anticipate the claimed step of deriving calories burned from data indicative of heat flow and data indicative of motion. Accordingly the rejections of claims 115 and 120 are overcome and reversal thereof is respectfully requested.

5. Claims 116 and 121

Claims 116 depends indirectly from claim 104, therefore, if claim 104 is allowed, claim 116 is allowable. Claim 121 depends indirectly from both claims 104 and 110, thus, if any of those claims are allowed, claim 121 is similarly allowable. Claims 116 and 121 are grouped separately, however, because each of claims 116 and 121 recite an additional limitation. Claims 116 and 121 recite that one of the two sensors (which are recited in claim 111) is a skin conductance sensor. To support her rejection, the Examiner cites to an embodiment in Mault that describes a “Body Fat Measurement Module,” which discloses a bioimpedance sensor for determining the body fat content of an individual. (See Mault, Col. 15, lines 52-61). Applicants submit that body fat measurement sensors are not skin conductance sensors and they do not

generate data indicative of the resistance of the individual's skin to electric current. Rather, body fat bioimpedance sensors which function in the manner described by Mault, analyze multiple frequencies to determine the intracellular and extra-cellular water content of the body. Body fat sensors perform this function by assuming a certain level of hydration in the individual's lean tissue. (Mault, Col. 16, lines 40-49). Such sensors are not configured to determine the resistance of an individual's skin, even though minor skin conductivity differences may affect the measurement. (Mault, Col.15, lines 56-62). Mault's mention of the effect of skin conductivity differences is what the Examiner inappropriately seized on to support her position that Mault anticipates a skin conductance sensor. However, a thorough reading of the reference as a whole reveals that it does not disclose the claimed skin conductivity sensors that generate data indicative of the resistance of the individual's skin to electric current as claimed. Rather, Mault teaches away from such an interpretation, referencing differences in skin conductivity as inappropriate and undesirable noise that should be diminished in order to maintain the integrity of the signal. In contrast to the claimed invention, therefore, Mault discloses removing rather than generating or using data indicative of the individual's resistance to an electric current.

Accordingly, the rejection of claims 116 and 121 is overcome and reversal thereof is respectfully requested.

6. Claims 124, 125, 150-152, 172, 176, 178, 180, and 182

Claim 124, the other independent claim in this application, is similar to independent claim 104. Claim 124 is representative of this particular group of claims. Like claim 104, claim 124 recited the step of calculating quantitative status information from a first and second parameter.

These claims are grouped separately, however, because claim 124 recites a different communicating step from claim 104, which is as follows:

communicating to a recipient said calculated quantitative status information **indicative of a suggested change in said individual's performance** to assist said individual in the achievement of said physiological status goal.

To support the rejection of Claim 124, the Examiner again cites Mault Col. 6, line 61 to Col. 7, line 11. The rejection states that the Examiner “interprets Mault’s teaching of ‘the software may then prompt the user...walk or run a certain distance’ to be a form of ‘communicating to a recipient said quantitative status information.’ ” But notably, the Examiner does not even allege that Mault discloses the claimed step of communicating information *indicative of a suggested change in said individual’s performance*. Therefore, it is unclear if the Examiner was even aware of the relevant claimed limitation. Respectfully, the Examiner’s failure to articulate a clear rejection in this case is in contravention to the Administrative Procedure Act, 5 U.S.C. § 706(2). *See In Re Sang Su Lee* 277 F.3d 1338, 1342-44 (Fed. Cir. 2002)(stating that the Patent Office must articulate its reasons for a rejection and that the Patent Office must provide an administrative record showing the evidence supporting a rejection accompanied by the reasoning supporting the rejection.)

Regardless of the deficiency in the Examiner’s rejection, Applicants submit that Mault does not disclose the claimed step of communicating to a recipient said calculated quantitative status information *indicative of a suggested change in said individual's performance* as claimed. What Mault does disclose is a system capable of reminding users to “run or walk a certain distance” based on a schedule. “The software ...prompt[s] the user to remind them that, **according to the schedule**, they should run or walk a certain distance each day.” Mault, Col. 6,

line 66 to Col. 7, line 1 (emphasis added). Such prompts are not *indicative of a change in said individual's performance*, as claimed. And the prompts are certainly not calculated quantitative status information from the claimed first and second parameters, wherein the first and second parameters are produced by the individual's body or the environment adjacent to the individual's body as discussed in relation to claim 104. Rather, the prompts are simply reminders to adhere to a schedule. Accordingly, the rejection of Claim 124 is overcome and reversal thereof is respectfully requested. Claims 125, 150-152, 172, 176, 180, and 182 depend on claim 124, and as such the rejection of those claims should be similarly reversed.

With respect to claim 178 in particular, the that claim requires: communicating the data indicative of both first and second parameters to a central monitoring unit, wherein the central monitoring unit performs the calculation of quantitative status information from both parameters.<sup>10</sup> Mault only discloses a "remote" server, but not one that performs the claimed calculation of quantitative status information suggestive of a change from two parameters. Accordingly, Mault does not anticipate claim 178.<sup>11</sup>

7. Claim 126, 127, 137-139, and 142-144

Claim 126 indirectly depends from independent claim 124. Therefore, the arguments with respect to claim 124 are incorporated herein. Claim 126 is representative of this particular group,

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<sup>10</sup> Claim 177 recites the term "commutating". This is a typographical error. The term is meant to be "communicating", which clearly is consistent with the disclosure and the other claims. Applicants respectfully request that the Board instruct the Examiner to either allow the Applicants to make the appropriate correction to the term, or to make the correction via an Examiner's amendment prior to allowance should the Board deem the claims allowable.

<sup>11</sup> Claim 178 also recites the term "commutating". See Note 8 above.

and is grouped separately from the above groups because claim 126 recites an additional limitation of generating derived data based on said data indicative of *a first parameter and data indicative of a second parameter of said individual*, wherein the first and second parameters are produced by the individual's body or the environment adjacent to the individual's body. (See e.g., Table 2 in specification, which lists types of derived information, and the parameters used for deriving that information).

The Examiner cites Mault, Col. 12, lines 13-24 for anticipating derived data from a first and second parameter. However, the cited excerpt discloses the determination of various exercise parameters, such as calories burned, distance covered, average speed and the like from only one parameter: pedometer data. Mault discloses alternatives for a pedometer but does not disclose using a more than one parameter, i.e., *a first and second parameter*, for calculating as calories burned, distance covered, average speed and the like. Accordingly, the rejections of claim 126, and claims 127, 137-139, and 142-144, which depend from claim 126 directly or indirectly, are overcome and reversal thereof is respectfully requested.

8. Claims 140 and 145

Claims 140 and 145 each depend indirectly on claims 124 and 126, and are therefore allowable if those claims are deemed allowable. Since each claim indirectly depends from claim 126, each claim requires the claimed limitation of *derived data*. As stated above, *derived data*, according to the claims, must result from at least two parameters, i.e., a first and a second parameter. Claims 140 and 145 are grouped separately, however, because according to claims 140 and 145, derived data comprises *data relating to calories burned* and is generated using at

least *said data indicative of motion* and *said data indicative of heat flow*. The data indicative of heat flow is generated by the claimed *heat flux sensor*.

Mault contains no disclosure of the claimed heat flux sensor and Mault does not disclose utilizing data indicative of heat flow data along with motion-related data to arrive at calories burned. Respectfully, the Examiner errs by interpreting Mault's disclosure of a "temperature sensor" to read on the claimed *heat flux sensor*. As described in the specification, the claimed *heat flux sensor* and *data indicative of heat flow* are distinct from temperature sensors. (See Specification, page 7, line 10; Table 1; Table 2; page 24, line 11; Fig. 9; page 31, lines 5-9). The specification makes clear that the data indicative of heat flow is not an individual's skin temperature or core body temperature because the specification treats heat flow, skin temperature, and core temperature separately. "[S]kin temperature, heat flow, beat-to-beat heart variability, heart rate, pulse rate, respiration rate, core temperature, galvanic skin response ... can be used to provide indicators to the user of his or her sleep patterns over a desired time period." (Specification, page 24, lines 12-16). As such, Mault does not anticipate the claimed heat flux sensor or the claimed data indicative of heat flow.

Further, Mault does not disclose the use of data indicative of heat flow along with data indicative of motion to derive calories burned. As stated above, the Mault reference contains disclosures of various (primarily single-sensor) embodiments, which are configured to be combined with PDA's. The Examiner takes bits and pieces of disclosure in disparate embodiments in an attempt to reconstruct Applicants' invention. The reconstruction fails, however, because none of the passages disclose the use of heat flow together with motion data

to arrive at calories burned. Rather, Mault, Col. 12, lines 14-16 discusses determining calories burned from one parameter only: a pedometer. The remainder of the Mault reference is similarly deficient. For example, in describing an entirely different embodiment for a heart rate monitor, Mault at Col. 20., lines 7-11, discloses that a skin mounted heart-rate monitor may also contain a temperature sensor because such information “is useful to record within a calorie management system.” Again, this particular section in Mault does not include a disclosure of heat flow data. Again, accepting, *arguendo*, the Examiner’s interpretation that Mault discloses data indicative of heat flow, Mault still does not anticipate the claim because Mault only discloses: (1) that heart rate data and temperature data are “useful to record” in a calorie management system; and (2) that a heart rate monitor of the type described in Mault can comprise a “micro machined activity monitor,” which would similarly be “useful” in physical fitness program, cardiac rehabilitation program or the like. The mere mention that other parameters would be “useful” is not a sufficiently enabling disclosure to anticipate the claimed step of deriving calories burned from data indicative of heat flow and data indicative of motion.

Accordingly the rejections of claims 140 and 145 are overcome and reversal thereof is respectfully requested.

9. Claim 141 and 146

Claims 141 and 146 each depend indirectly on claims 124 and 126, and are therefore allowable if those claims are deemed allowable. Claims 141 and 146 are grouped separately because each require two sensors comprising *a body motion sensor* and *skin conductance sensor*.

And each claim requires that the *data relating to calories burned* be derived from two parameters: (1) *data indicative of motion*; and (2) *data indicative of resistance of the individual's skin to electric current*.

To support the rejection of these claims, the Examiner utilizes improper hindsight and a strained reading of the reference to piece together components of unrelated embodiments in the Mault disclosure to arrive at the claimed invention. The Examiner cites a portion of Mault that discloses a pedometer, which is used for activity monitoring. (See Mault, Col. 11, lines 52-57; Col. 12, lines 14-16). She then cites to an embodiment in Mault that describes a “Body Fat Measurement Module,” which discloses a bioimpedance sensor for determining the body fat content of an individual. (See Mault, Col. 15, lines 52-61). She then concludes that Mault discloses using data from both sensors to arrive at calories burned without any support or quotation from the reference. Again, the Examiner’s reasoning is flawed.

First, as discussed above, body fat measurement sensors are not skin conductance sensors and they do not generate data indicative of the resistance of the individual’s skin to electric current. Therefore, Mault cannot anticipate the claims on this account. Second, similar to the arguments above with respect to Mault’s failure to disclose the use of data indicative of motion along with data indicative of heat flow to derive calories burned, Mault does not disclose the use of data indicative of motion along with *data indicative of the resistance of the individual’s skin to electric current* to derive calories burned. As such, Mault does not anticipate claims 141 and 146.

Accordingly the rejections of claims 141 and 146 are overcome and reversal thereof is respectfully requested.



10. Claims 161-164

Claims 161-164 are grouped separately because each require a body motion sensor and a body potential sensor. The claims also require that calories burned be derived from *data indicative of motion* and *data indicative of heart beats*. Claim 161 is representative of the group. As with the previously-discussed claimed embodiments involving the derivation of calories burned, the claimed invention requires that the derivation be based upon two parameters. Mault does not disclose two parameters to derive calories burned. Mault discloses other parameters as “alternative” parameters and that the use of other parameters is “useful” as discussed above, but does not teach or suggest the combination of the recited parameters, i.e., motion and heart beats, to derive calories burned. Since Mault does not disclose the use of data indicative of motion along with *data indicative of heart beats* to derive calories burned, Mault does not anticipate claims 161-164.

**C. Mault in view of Brown et al., U.S. Pat. No. 5,913,310 fails to render claims 122 and 123 obvious under 35 U.S.C §103.**

The Examiner rejected claims 122 and 123 under 35 U.S.C. §103(a) as being unpatentable over Mault in view of Brown.<sup>12</sup> To support the rejection, the Examiner states that Mault teaches the method as analyzed and discussed in claim 104 above. The Examiner admits that Mault does not disclose the steps of aggregating the data indicative of the first or second parameter along with the quantitative status from a plurality of individuals to create aggregate data. The Examiner,

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<sup>12</sup> Brown is attached as Exhibit G for the Board’s convenience.

however, alleges that Brown teaches this limitation and that it would have been obvious to modify Mault to include the limitations allegedly taught by Brown, the motivation being to statistically analyze the data for use in epidemiological research. (Brown, Col. 20, lines 35-45).

The Examiner's conclusion that Mault teaches the method as analyzed and discussed in claim 104 is flawed for the reasons discussed above with reference to claim 104. As discussed above, Mault does not disclose each and every claimed limitation of claim 104, the claim from which claims 122 and 123 depend. Therefore, even with the additional alleged teachings of Brown, the combination of Mault and Brown does not teach all of the claim limitations. Teaching all of the claimed limitations is required to make out a *prima facie* case of obviousness. See, In re Vaeck, 947 F.2d. 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Further, the Examiner's motivation analysis is flawed. A careful reading of the cited reference will reveal that motivation is indeed lacking. Brown does not disclose generating data indicative of a physiological parameter with a wearable device and aggregating such data--let alone the aggregation of any physiological data. Brown merely discloses the aggregation of test results from children completing the disclosed continuous performance tasks battery. The performance task battery is in the form of questionnaires; no physiological data is involved. (See Brown, Col. 20, lines 29-37.) Thus, the "epidemiological research" disclosed is research done with the test results from surveys. Therefore, not only has the Examiner engaged in prohibited hindsight reconstruction of the invention, she has done so by piecing together keywords from different references without reference to the context of those keywords. Accordingly, the rejection is overcome and Applicants respectfully request withdrawal thereof.

For the reasons stated above, Applicants respectfully submit that the rejections of claims 104-127, 137-152, 161-164, 167, 171, 172, and 175-182 are overcome, and reversal thereof is respectfully requested along with a holding that each of the claims are allowable.

Respectfully submitted,

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## **APPENDICES**

## **APPENDIX OF CLAIMS**

1 – 103. (Cancelled)

104. (Rejected) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal, said individual wearing a wearable physiological monitoring device, the method comprising:

establishing said physiological status goal according to certain physiological parameters of said individual;

generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device;

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device;

receiving data related to the life activities of said individual;

calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal;

generating individual status information relating to the status of said individual from said life activities data; and

communicating to a recipient said calculated quantitative status information regarding said individual and said individual status information,

wherein said first and second parameters are produced by at least one of said individual's body and the environment adjacent said individual's body.

105. (Rejected) A method according to claim 104, wherein said physiological status goal comprises a plurality of categories.

106. (Rejected) A method according to claim 105, wherein said quantitative status information is determined and provided with respect to each of said categories.

107. (Rejected) A method according to claim 106, wherein said categories relate to two or more of nutrition, activity level, mind centering, sleep, and daily activities.

108. (Rejected) A method according to claim 104, wherein said communicating step comprises providing at least a portion of said quantitative status information in graphical form.

109. (Rejected) A method according to claim 104, wherein at least two sensors selected from the group consisting of physiological sensors and contextual sensors are in electrical communication with at least one of said wearable device and said second device, said sensors generating said data indicative of a first parameter and said data indicative of a second parameter of said individual.

110. (Rejected) A method according to claim 109, further comprising generating derived data based on said data indicative of a first parameter and said data indicative of a second parameter of said individual.

111. (Rejected) A method according to claim 110, further comprising the additional step of using at least said derived data to determine said quantitative status information.

112. (Rejected) A method according to claim 110, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

113. (Rejected) A method according to claim 110, said at least two sensors being two of a body motion sensors adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of a first parameter and said data indicative of a second parameter

comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

114. (Rejected) A method according to claim 110, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

115 (Rejected) A method according to claim 113, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

116. (Rejected) A method according to claim 109, said at least two sensors comprising at least one skin conductance sensor generating data indicative of the resistance of said individual's skin to electric current.

117. (Rejected) A method according to claim 111, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.



118. (Rejected) A method according to claim 111, said at least two sensors being two of a body motion sensors adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

119. (Rejected) A method according to claim 111, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

120. (Rejected) A method according to claim 118, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

121. (Rejected) A method according to claim 118, wherein one of at least said at least two sensors further comprises said skin conductance sensor which generates data indicative of the resistance of said individual's skin to electric current.

122. (Rejected) A method according to claim 104, further comprising the step of aggregating at least one of said data indicative of a first parameter of said individual, said data indicative of a second parameter of said individual, and said quantitative status information with data collected from a plurality of individuals to create aggregate data.

123. (Rejected) A method according to claim 122, further comprising the step of creating reports based on said aggregate data.

124. (Rejected) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal, said individual wearing a wearable physiological monitoring device, the method comprising:

establishing said physiological status goal according to certain physiological parameters of said individual;

generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device;

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device;

calculating, directly from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal; and

communicating to a recipient said calculated quantitative status information indicative of a suggested change in said individual's performance to assist said individual in the achievement of said physiological status goal,

wherein said first and second parameters are produced by at least one of said individual's body and the environment adjacent said individual's body.

125. (Rejected) A method according to claim 124, wherein at least two sensors selected from the group consisting of physiological sensors and contextual sensors are in electrical communication with at least one of said wearable device and said second device, said sensors generating said data indicative of a first parameter and said data indicative of a second parameter of said individual.

126. (Rejected) A method according to claim 125, further comprising generating derived data based on said data indicative of a first parameter and said data indicative of a second parameter.

127. (Rejected) A method according to claim 126, further comprising the step of using at least said derived data to determine said quantitative status data.

128-136. (Canceled)

137. (Rejected) A method according to claim 126, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

138. (Rejected) A method according to claim 126, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

139. (Rejected) A method according to claim 126, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

140. (Rejected) A method according to claim 138, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

141. (Rejected) A method according to claim 138, said at least two sensors comprising a body motion sensor and skin conductance sensor, wherein said derived data comprises data relating to calories burned, wherein said data relating to calories burned is generated using at least said data indicative of motion and said data indicative of resistance of said individual's skin to electric current.

142. (Rejected) A method according to claim 127, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

143. (Rejected) A method according to claim 127, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a

heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

144. (Rejected) A method according to claim 127, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

145. (Rejected) A method according to claim 143, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

146. (Rejected) A method according to claim 143, said at least two sensors comprising said skin conductance sensor and a body motion sensor, wherein said derived data comprises data related to calories burned, and wherein said data relating to calories burned is generated using at least said data indicative of motion and said data indicative of resistance of said individual's skin to electric current.

147. (Rejected) A method according to claim 104, said wearable physiological monitoring device being part of an armband.

148. (Rejected) A method according to claim 104, said wearable physiological monitoring device being part of a garment.

149. (Rejected) A method according to claim 104, said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, an impedance sensor adapted to generate data indicative of an impedance of said individual's body, and a pulse rate sensor adapted to generate data indicative of a pulse rate of said individual, said physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate when worn by said individual; said data indicative of a first parameter and said data indicative of a second parameter being generated using said at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to

electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate.

150. (Rejected) A method according to claim 124, said wearable physiological monitoring device being part of an armband.

151. (Rejected) A method according to claim 124, said wearable physiological monitoring device being part of a garment.

152. (Rejected) A method according to claim 124, said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, an impedance sensor adapted to generate data indicative of an impedance of said individual's body, and a pulse rate sensor adapted to generate data indicative of a pulse rate of said individual, said physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data



indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate when worn by said individual; said data indicative of a first parameter and said data indicative of a second parameter being generated using said at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate.

153-160. (Cancelled)

161. (Rejected) A method according to claim 113, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

162. (Rejected) A method according to claim 118, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

163. (Rejected) A method according to claim 138, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data

relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

164. (Rejected) A method according to claim 143, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

165- 166. (Cancelled)

167. (Rejected) A method according to claim 104, further comprising receiving sensor data from one or more sensor devices, said one or more sensor devices measuring said sensor data from the individual, and using said sensor data in addition to said data indicative of a first parameter and said data indicative of a second parameter to calculate said quantitative status information.

168- 170. (Cancelled)

171. (Rejected) A method according to claim 104, further comprising the step of generating derived data from at least one of said data indicative of a first parameter and said data indicative of a second parameter, wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.

172. (Rejected) A method according to claim 124, further comprising the step of generating derived data from at least one of said data indicative a first parameter and said data indicative of a second parameter, wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.

173-174. (Cancelled)

175. (Rejected) A method according to Claim 104 wherein said step of calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal further comprises using said life activities data in said calculation.

176. (Rejected) A method according to Claim 124 further comprising the step of receiving data related to said individual's life activities, and wherein said step of calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal further comprises using said life activities data in said calculation.

177. (Rejected) A method according to Claim 104 further comprising the step of commutating said data indicative of said first and second parameters to a central monitoring unit, and wherein said step of calculating, from said first and second parameters, quantitative status

information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is performed by said central monitoring unit.

178. (Rejected) A method according to Claim 124 further comprising the step of commutating said data indicative of said first and second parameters to a central monitoring unit, and wherein said step of calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is performed by said central monitoring unit.

179. (Rejected) A method according to claim 104, said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of data indicative of resistance of said individual's skin to electric current, data indicative of heat flow of said individual, data indicative said individual's brain activity, data indicative of a temperature of said individual's skin, said data indicative of impedance of said individual, data indicative of said individual's respiration, data indicative of said individual's body conductance, data indicative of said individual's body resistance, data indicative of said individual's body potential, data indicative of said individual's blood pressure, data indicative of said individual's oxygen consumption, data indicative of said individual's body chemistry sensors, and indicative of said individual's body position sensors.

180. (Rejected) A method according to claim 124, said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of data

indicative of resistance of said individual's skin to electric current, data indicative of heat flow of said individual, data indicative said individual's brain activity, data indicative of a temperature of said individual's skin, said data indicative of impedance of said individual, data indicative of said individual's respiration, data indicative of said individual's body conductance, data indicative of said individual's body resistance, data indicative of said individual's body potential, data indicative of said individual's blood pressure, data indicative of said individual's oxygen consumption, data indicative of said individual's body chemistry sensors, and indicative of said individual's body position sensors.

181. (Rejected) A method according to claim 104 wherein said life activities are manually entered.

182. (Rejected) A method according to claim 124 wherein said life activities are manually entered.

## **APPENDIX OF EVIDENCE**

The following is a list of the evidence entered in the record which Applicants rely upon in the appeal:

Exhibit A – Interview Summary of May 24, 2006 Interview, entered July 12, 2006

Exhibit B – Amendment filed and entered June 15, 2005

Exhibit C – Letter and Revised Amendment filed and entered February 17, 2006

Exhibit D – Final Office Action entered March 13, 2006

Exhibit E – Information Disclosure Statement Acknowledgement Receipt of September 13, 2005.

Exhibit F – U.S. Patent No. 6,790,178 B1 to Mault et al., entered by the Examiner in the Final Office Action dated March 13, 2006 (See Exhibit D).

Exhibit G – U.S. Pat. No. 5,913,310 to Brown, entered by Examiner in the Final Office Action entered May 28, 2004 and also in the Final Office Action dated March 13, 2006 (See Exhibit D).

## **APPENDIX OF RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.



# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,660	06/16/2000	Eric Teller	1148/015	2830
23861	7590	07/12/2005		
METZ LEWIS, LLC 11 STANWIX STREET 18TH FLOOR PITTSBURGH, PA 15222				
EXAMINER PASS, NATALIE				
ART UNIT 3626				
PAPER NUMBER				

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

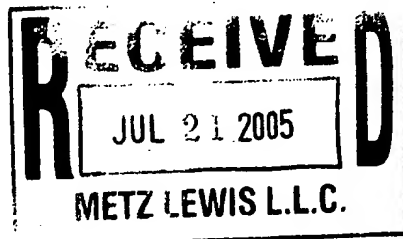


Exhibit A

Appeal - Application Ser. No. 09/595,660



# Interview Summary

Application No.

09/595,660

Applicant(s)

TELLER ET AL.

Examiner

Natalie A. Pass

Art Unit

3626

All participants (applicant, applicant's representative, PTO personnel):

(1) Natalie A. Pass.

(3) Joseph Thomas.

(2) Barry Friedman (Reg. No. 33695).

(4) John Manocello, John Stivorc.

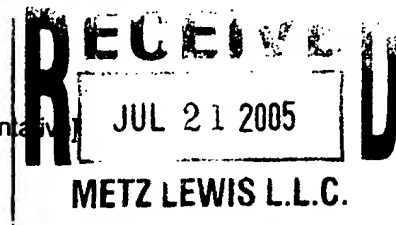
Date of Interview: 19/5/05 & 24/5/05.

Type: a) ☒ Telephonic b) ☐ Video Conference

c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.

If Yes, brief description: \_\_\_\_\_



Claim(s) discussed: 104 in particular and all of record in general.

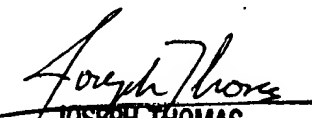
Identification of prior art discussed: Brown300 in particular and all of record in general.

Agreement with respect to the claims f) ☐ was reached. g) ☐ was not reached. h) ☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.


(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

  
JOSEPH THOMAS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Exhibit A

  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

## Exhibit A

Appeal - Application Ser. No. 09/595,660

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussion revolved around Applicant's faxed proposed claim amendments and the applicability of the teachings of the Brown300 reference that had been applied in the Office Action rejecting the claim limitations. Applicant pointed out that in light of the proposed amendments reciting "communicating to a recipient" that the teachings of Brown300 no longer applied. After reviewing the Brown300 reference in the light of the proposed new claim language Examiners concurred and agreed to withdraw the Brown300 reference at such time as the new limitations became of record.

In addition, Examiner provided Applicant with three references, namely Amano (5914837), Hisano(6808473), and Fitch (5730140), that appear to be applicable in analysis of Applicant's invention, and it was suggested that further drafting of claim language to might be made with these references in mind, however an updated, more focused search, which might find more relevant references, would be done once the claim language became of record. It was further pointed out to Applicant that any changes to claim language must be supported in the originally filed specification. It is requested that Applicant point to specific page and line numbers of the originally filed specification for support of any newly added limitations.

Examiner will reconsider the references in light of claim amendments made of record.

**Exhibit A**  
**Appeal - Application Ser. No. 09/595,660**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit 2830	:	PATENT APPLICATION
Examiner Natalie Pass	:	
In re application of	:	<b>SYSTEM FOR MONITORING</b>
TELLER, ET AL.	:	<b>HEALTH, WELLNESS AND</b>
	:	<b>FITNESS</b>
Serial No. 09/595,660	:	
Filed June 16, 2000	:	

**AMENDMENT**

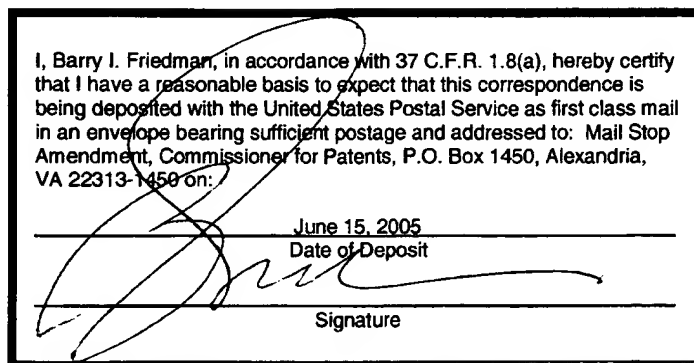
Pittsburgh, Pennsylvania 15222

June 15, 2005

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant respectfully submits this Response in response to the Office Action mailed on  
December 27, 2004.



**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

**AMENDMENTS TO THE CLAIMS**

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Canceled)
15. (Canceled)
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)
22. (Canceled)

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled)
27. (Canceled)
28. (Canceled)
29. (Canceled)
30. (Canceled)
31. (Canceled)
32. (Canceled)
33. (Canceled)
34. (Canceled)
35. (Canceled)
36. (Canceled)
37. (Canceled)
38. (Canceled)
39. (Canceled)
40. (Canceled)
41. (Canceled)
42. (Canceled)
43. (Canceled)
44. (Canceled)
45. (Canceled)

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

46. (Canceled)
47. (Canceled)
48. (Canceled)
49. (Canceled)
50. (Canceled)
51. (Canceled)
52. (Canceled)
53. (Canceled)
54. (Canceled)
55. (Canceled)
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57. (Canceled)
58. (Canceled)
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60. (Canceled)
61. (Canceled)
62. (Canceled)
63. (Canceled)
64. (Canceled)
65. (Canceled)
66. (Canceled)
67. (Canceled)
68. (Canceled)

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

69. (Canceled)
70. (Canceled)
71. (Canceled)
72. (Canceled)
73. (Canceled)
74. (Canceled)
75. (Canceled)
76. (Canceled)
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81. (Canceled)
82. (Canceled)
83. (Canceled)
84. (Canceled)
85. (Canceled)
86. (Canceled)
87. (Canceled)
88. (Canceled)
89. (Canceled)
90. (Canceled)
91. (Canceled)

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**



92. (Canceled)
93. (Canceled)
94. (Canceled)
95. (Canceled)
96. (Canceled)
97. (Canceled)
98. (Canceled)
99. (Canceled)
100. (Canceled)
101. (Canceled)
102. (Canceled)
103. (Canceled)

104. (Currently Amended) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal, said individual wearing a wearable physiological monitoring device, the method comprising:

establishing said physiological status goal according to certain ~~preselected~~ selectable physiological parameters of said individual;

~~wearing a wearable physiological monitoring device on the body of the individual;~~

generating data with said wearable device, said generated data indicative of ~~one or more measured parameters~~ a first parameter of said individual ~~using~~ wearing said wearable physiological monitoring device;

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device;

~~determining~~ calculating quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal

~~based upon~~ from said data indicative of ~~one or more~~ said first and second parameters; and

~~providing~~ communicating to a recipient said determined quantitative status information regarding said individual.

105. (Previously Presented) A method according to claim 104, wherein said physiological status goal comprises a plurality of categories.

106. (Previously Presented) A method according to claim 105, wherein said quantitative status information is determined and provided with respect to each of said categories.

107. (Previously Presented) A method according to claim 106, wherein said categories relate to two or more of nutrition, activity level, mind centering, sleep, and daily activities.

108. (Previously Presented) A method according to claim 104, wherein said providing step comprises providing at least a portion of said quantitative status information in graphical form.

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

109. (Previously Presented) A method according to claim 104, wherein at least two sensors selected from the group consisting of physiological sensors and contextual sensors are in electrical communication with said device, said sensors generating data indicative of at least a first parameter and a second parameter of said individual.

110. (Previously Presented) A method according to claim 109, said generating step further comprising generating derived data based on said data indicative of at least a first parameter and a second parameter, said one or more measured parameters including said derived data.

111. (Previously Presented) A method according to claim 109, said data indicative of one or more measured parameters including said data indicative of at least a first parameter and a second parameter, said using step further comprising generating derived data based on said data indicative of at least a first parameter and a second parameter and using at least said derived data to determine said quantitative status information.

112. (Previously Presented) A method according to claim 110, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

**Exhibit B**

**Appeal - Application. Ser. No. 09/595,660**

113. (Previously Presented) A method according to claim 110, said at least two sensors being two of a body motion sensors adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of at least a first parameter and a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

114. (Previously Presented) A method according to claim 110, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

115 (Previously Presented) A method according to claim 113, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

116. (Previously Presented) A method according to claim 115, said at least two sensors further including said skin conductance sensor, wherein said data relating to calories burned is

**Exhibit B**

**Appeal Application Ser. No. 09/595,660**

generated using at least said data indicative of motion, said data indicative of heat flow and said data indicative of resistance of said individual's skin to electric current.

117. (Previously Presented) A method according to claim 111, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

118. (Previously Presented) A method according to claim 111, said at least two sensors being two of a body motion sensors adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of at least a first parameter and a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

119. (Previously Presented) A method according to claim 111, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

120. (Previously Presented) A method according to claim 118, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

121. (Previously Presented) A method according to claim 120, said at least two sensors further including said skin conductance sensor, wherein said data relating to calories burned is generated using at least said data indicative of motion, said data indicative of heat flow and said data indicative of resistance of said individual's skin to electric current.

122. (Previously Presented) A method according to claim 104, further comprising the step of aggregating said data indicative of one or more measured parameters with data collected from a plurality of individuals to create aggregate data.

123. (Previously Presented) A method according to claim 122, further comprising the step of creating reports based on said aggregate data.

124. (Currently Amended) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological

**Exhibit A**  
**Appeal - Application. Ser. No. 09/595,660**

status goal, said individual wearing a wearable physiological monitoring device, the method comprising:

establishing said physiological status goal according to certain ~~preselected~~ selectable physiological parameters of said individual;

~~wearing a wearable physiological monitoring device on the body of the individual;~~

generating data with said wearable device, said generated data indicative of a first ~~one or more measured~~ parameters of said individual ~~using wearing~~ said wearable physiological monitoring device;

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device;

~~determining~~ calculating quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal ~~based upon~~ from said data indicative of ~~one or more~~ said first and second parameters; and

communicating to a recipient ~~providing to said individual~~ said determined quantitative status information indicative of a suggested change in said individual's performance to assist said individual in the achievement of said physiological status goal.

125. (Previously Presented) A method according to claim 124, wherein at least two sensors selected from the group consisting of physiological sensors and contextual sensors are in electrical communication with said device, said sensors generating data indicative of at least a first parameter and a second parameter of said individual.

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

126. (Previously Presented) A method according to claim 125, said generating step further comprising generating derived data based on said data indicative of at least a first parameter and a second parameter, said one or more measured parameters including said derived data.

127. (Previously Presented) A method according to claim 125, said data indicative of one or more measured parameters including said data indicative of at least a first parameter and a second parameter, said using step further comprising generating derived data based on said data indicative of at least a first parameter and a second parameter and using at least said derived data to determine said relative degree of achievement.

128. (Canceled)

129. (Canceled)

130. (Canceled)

131. (Canceled)

132. (Canceled)

133. (Canceled)

134. (Canceled)

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**



135. (Canceled)

136. (Canceled)

137. (Previously Presented) A method according to claim 126, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

138. (Previously Presented) A method according to claim 126, said at least two sensors being two of a body motion sensors adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of at least a first parameter and a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

139. (Previously Presented) A method according to claim 126, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

140. (Previously Presented) A method according to claim 138, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

141. (Previously Presented) A method according to claim 140, said at least two sensors further including said skin conductance sensor, wherein said data relating to calories burned is generated using at least said data indicative of motion, said data indicative of heat flow and said data indicative of resistance of said individual's skin to electric current.

142. (Previously Presented) A method according to claim 127, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors,

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

143. (Previously Presented) A method according to claim 127, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of at least a first parameter and a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

144. (Previously Presented) A method according to claim 127, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

145. (Previously Presented) A method according to claim 143, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

**Exhibit B**

**Appeal - Application. Ser. No. 09/595,660**

146. (Previously Presented) A method according to claim 145, said at least two sensors further including said skin conductance sensor, wherein said data relating to calories burned is generated using at least said data indicative of motion, said data indicative of heat flow and said data indicative of resistance of said individual's skin to electric current.

147. (Previously Presented) A method according to claim 104, said wearable physiological monitoring device being part of an armband.

148. (Previously Presented) A method according to claim 104, said wearable physiological monitoring device being part of a garment.

149. (Previously Presented) A method according to claim 104, said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, an impedance sensor adapted to generate data indicative of an impedance of said individual's body, and a pulse rate sensor adapted to generate data indicative of a pulse rate of said individual, said physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data

indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data

**Exhibit B**

**Appeal - Application Ser. No. 09/595,660**

indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate when worn by said individual; said data indicative of one or more measured parameters being generated using said at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate.

150. (Previously Presented) A method according to claim 124, said wearable physiological monitoring device being part of an armband.

151. (Previously Presented) A method according to claim 124, said wearable physiological monitoring device being part of a garment.

152. (Previously Presented) A method according to claim 124, said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, an impedance sensor adapted to generate data indicative of an impedance of said individual's body, and a pulse rate sensor adapted to generate data indicative of a pulse rate of said

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individual, said physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate when worn by said individual; said data indicative of one or more measured parameters being generated using said at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate.

153. (Currently Amended) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal, the method comprising:

establishing said physiological status goal according to certain selectable ~~preselected~~ physiological parameters of said individual;

~~wearing~~ providing a wearable physiological monitoring device to be worn on the body of the individual, said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain

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activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said wearable physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin when worn by said individual;

generating data with said wearable device, said generated data indicative of one or more measured parameters of said individual using at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin;

~~determining~~ calculating quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal ~~based upon~~ from said data indicative of one or more parameters; and

~~providing~~ communicating to a recipient said determined quantitative status information regarding said individual.

154. (Previously Presented) A method according to claim 153, said wearable physiological monitoring device having a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain

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activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said wearable physiological monitoring device generating said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin when worn by said individual, said data indicative of each of said one or more measured parameters being generated using at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

155. (Previously Presented) A method according to claim 153, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said one or more measured parameters comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

156. (Previously Presented) A method according to claim 155, said at least two sensors further including said skin conductance sensor, wherein said data relating to calories burned is generated using at least said data indicative of motion, said data indicative of heat flow, and said data indicative of resistance of said individual's skin to electric current.

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157. (Currently Amended) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal. the method comprising:

establishing said physiological status goal according to certain ~~preselected~~  
selectable physiological parameters of said individual;

~~wearing~~ providing a wearable physiological monitoring device to be worn on the body of the individual, said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said wearable physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin when worn by said individual;

generating data with said wearable device, said generated data indicative of one or more measured parameters of said individual using at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin

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~~determining~~ calculating quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal ~~based upon~~ from said data indicative of one or more parameters; and

~~providing to said individual~~ communicating to a recipient said determined quantitative status information indicative of a suggested change in said individual's performance to assist said individual in the achievement of said physiological status goal.

158. (Previously Presented) A method according to claim 157, said wearable physiological monitoring device having a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said wearable physiological monitoring device generating said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin when worn by said individual, said data indicative of each of said one or more measured parameters being generated using at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

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159. (Previously Presented) A method according to claim 157, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said one or more measured parameters comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

160. (Previously Presented) A method according to claim 159, said at least two sensors further including said skin conductance sensor, wherein said data relating to calories burned is generated using at least said data indicative of motion, said data indicative of heat flow, and said data indicative of resistance of said individual's skin to electric current.

161. (Previously Presented) A method according to claim 113, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

162. (Previously Presented) A method according to claim 118, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

163. (Previously Presented) A method according to claim 138, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived

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data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

164. (Previously Presented) A method according to claim 143, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

165. (Previously Presented) A method according to claim 153, said at least two sensors being said body motion sensor and said body potential sensor, wherein said one or more measured parameters comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

166. (Previously Presented) A method according to claim 157, said at least two sensors being said body motion sensor and said body potential sensor, wherein said one or more measured parameters comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

167. (Previously Presented) A method according to claim 104, further comprising receiving sensor data from one or more sensor devices, said one or more sensor devices measuring said sensor data from the individual, and using said sensor data in addition to said data indicative of one or more measured parameters to determine said quantitative status information.

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168. (Previously Presented) A method according to claim 124, further comprising receiving sensor data from one or more sensor devices, said one or more sensor devices measuring said sensor data from the individual, and using said sensor data in addition to said data indicative of one or more measured parameters to determine said relative degree of achievement.

169. (Previously Presented) A method according to claim 153, further comprising receiving sensor data from one or more sensor devices, said one or more sensor devices measuring said sensor data from the individual, and using said sensor data in addition to said data indicative of one or more measured parameters to determine said quantitative status information.

170. (Previously Presented) A method according to claim 157, further comprising receiving sensor data from one or more sensor devices, said one or more sensor devices measuring said sensor data from the individual, and using said sensor data in addition to said data indicative of one or more measured parameters to determine said relative degree of achievement.

171. (New) A method according to claim 104, further comprising the step of generating derived data from said data indicative of at least one of said first and second parameters, wherein said quantitative status information indicative of the relative degree of

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achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.

172. (New) A method according to claim 124, further comprising the step of generating derived data from said data indicative of at least one of said first and second parameters, wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.

173. (New) A method according to claim 153, further comprising the step of generating derived data from said data indicative of at least one of said first and second parameters, wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.

174. (New) A method according to claim 104, further comprising the step of generating derived data from said data indicative of at least one of said first and second parameters, wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.

## **REMARKS**

Reconsideration of the present application in view of the above amendments and the following remarks is respectfully requested.

### **I. Status of the Claims**

Claims 104-170 are pending in this application. Claims 128-136 have been previously canceled and claims 104, 124, 153 and 157 are currently amended. New claims 171-174 have been added.

### **II. Interview with Examiner**

The Examiners granted Applicants telephone interviews on May 19 and 24, 2005. Applicants thank the Examiners for extending these courtesies. The Remarks herein comprise Applicants written summary and response to the interview

### **III. Claim Objections**

The Examiner has objected to claims 104, 124, 153 and 157 as not conforming to current amendment marking practice. The claims have been marked as requested to conform to their current status.

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#### **IV. Rejections Under 35 U.S.C. § 103**

The Examiner has rejected claims 104-112, 114, 117, 119, 124-127, 137, 139, 142 and 144 under 35 U.S.C. § 103(a) as being unpatentable over Brown, United States Patent No. 5,951,300, ("Brown300") in view of Alyfuku, et al., United States Patent No. 5,410,471, ("Alyfuku").

The Examiner has rejected claims 113, 118, 138, 143, 149, 152-153, 157, 167-170 under 35 U.S.C. § 103(a) as being unpatentable over Brown300, in view of Alyfuku and further in view of Korenman, et al., United States Patent No. 6,067,468 ("Korenman").

The Examiner has rejected claims 115-116, 120-121, 140-141, 145-146, 154-156 and 158-166 under 35 U.S.C. § 103(a) as being unpatentable over Brown300, in view of Alyfuku, et al. and Korenman and further in view of Pottgen, et al., United States Patent No. 5,813,994 ("Pottgen") and Nasiff, United States Patent No. 4,757,453 ("Nasiff").

The Examiner has rejected claim 122 under 35 U.S.C. § 103(a) as being unpatentable over Brown300, in view of Alyfuku, et al. and Brown et al., United States Patent No. 6,032,119 ("Brown 119").

The Examiner has rejected claim 123 under 35 U.S.C. § 103(a) as being unpatentable over Brown300, in view of Alyfuku, et al., Brown 119 and Brown et al., United States Patent No. 5,913,310 ("Brown 310").

The Examiner has rejected claims 147, 148, 150 and 151 under 35 U.S.C. § 103(a) as being unpatentable over Brown300 and Alyfuku and further in view of Pottgen.

Each of the rejections are based primarily upon Brown300 and with the exception of claims 122-123, for the reasons substantially set out in previous actions. During the course of the Interview, the Examiners indicated that they had been persuaded by Applicants with respect

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to the teachings of the Brown300 reference and would withdraw the rejections based upon that reference. The Examiners further indicated that additional searching was necessary and provided, as an illustrative example, United States Patent No. 6,808,473 to Hisano et al. (“Hisano et al.”); United States Patent No. 5,730,140 to Fitch (“Fitch”) and United States Patent No. 5,941,837 to Amano et al. (“Amano”). Applicants thank the Examiner for the extra time the Examiner spent performing this additional prior art search and for giving the Applicants the opportunity to review these references prior to submitting this response.

Applicants have submitted, under separate cover, a supplemental Information Disclosure Statement including Fitch and Amano. Hisano et al. has been determined to be inapplicable as not prior art since it has a filing date (and consequently an issue date) well after the filing date of the present application. The Fitch reference teaches little in relation to the claimed invention. Fitch discloses an invention that uses sound to monitor physiological data. See Col. 1, lns. 11 and 12. Specifically, Fitch is a method and apparatus for converting physiological information into sound by synthesizing complex realistic body sounds to reveal physiological variables such as heart rate or breathing rate. See Abstract. This is to provide a sonic data interface for users whose eyes are occupied with other tasks. See Col.1, lns. 21 and 22. Fitch does not provide a method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal as is claimed in the current invention. Notably, Fitch makes no mention of physiological status goals, neither the setting of such goals or the determining quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal as is currently claimed in the present invention.

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Amano discloses a health management device which is intended to obtain information relating to circulation in the body as one factor (col. 1, lines 5-27; col. 5, lines 60-65).

Acceleration pulse waveforms are utilized as the physiological parameter that is detected (col. 1, lines 47-50; col. 5, lines 60-65). These waveforms are evaluated in the form of an indicator showing the state of the user's circulation (col. 6, lines 10-17). Another aspect of the evaluation is the detection of exercise periods (col. 7, lines 20-30) during which acceleration pulse waveforms are not detectable (col. 5, lines 10-25). Finally, the device indicates whether or not the exercise has induced a change in the indicator (col. 7, lines 45-50).

As currently amended, the claims of the present invention each require the calculation of quantitative status information indicative of the relative degree of achievement of a specified goal. The quantitative status information must be calculated from two parameters obtained by the system. The Amano reference discloses a device and method in which the information or feedback given to the user is an indication of their circulation status, based upon the indicator. The indicator is obtained from a single parameter of the human physiology, being the detection of acceleration pulse waveforms by a fingertip plethysmogram. An accelerometer or other body movement detection means is merely utilized to detect periods of exercise during which the acceleration pulse waveforms may not be accurately measured. In contrast to the claimed invention, Amano makes no calculation or other evaluation of the pulse waveforms or of the indicators in which the calculation utilizes body movement or any other parameters. Thus, in contrast to the claimed invention, Amano does not use two parameters to calculate quantitative status information indicative of the relative degree of achievement of a specified goal.

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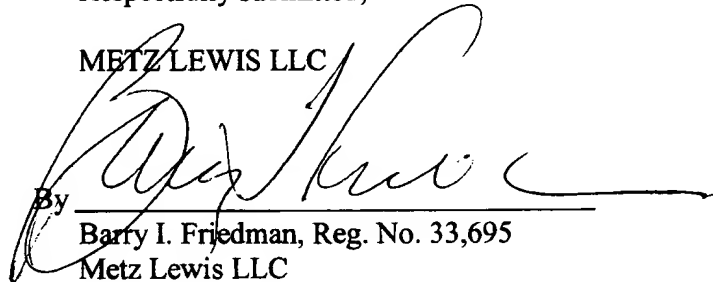
New dependent claims 171-174 have been added to more clearly identify the derivative nature of the calculated quantitative status information as well as the nature of the communications to the recipient relating to their relative degree of achievement of their goal.

### **CONCLUSION**

In light of the foregoing, claims 104-174 are in condition for allowance. Reconsideration is requested at an early date.

Respectfully submitted,

**METZ LEWIS LLC**

  
By \_\_\_\_\_

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Attorneys for Applicant

(412) 918-1100

**Exhibit B**  
**Appeal - Application. Ser. No. 09/595,660**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit 3626 : PATENT APPLICATION  
Examiner Natalie Pass :  
In re application of : **SYSTEM FOR MONITORING**  
Teller, et al. : **HEALTH, WELLNESS AND FITNESS**  
Serial No.: 10/595,660 :  
Filed June 16, 2000 :

**LETTER**

Pittsburgh, Pennsylvania 15222

February 17, 2006

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Upon review of the Amendment dated February 13, 2006, and the Request for Continued Examination under 37 C.F.R. § 1.114 filed concurrently therewith, Applicants discovered a typographical error in the last phrase of claim 104. Applicants have corrected this error and respectfully request that the enclosed Revised Amendment be entered in the instant application. No new matter has been added and the scope of the claims has not been altered.

In accordance with 37 C.F.R. 1.8(a), I hereby certify that I have a reasonable basis to expect that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope bearing sufficient postage and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

February 17, 2006  
Date of Deposit

Barry I. Friedman, Esq.  
Name of Person Signing

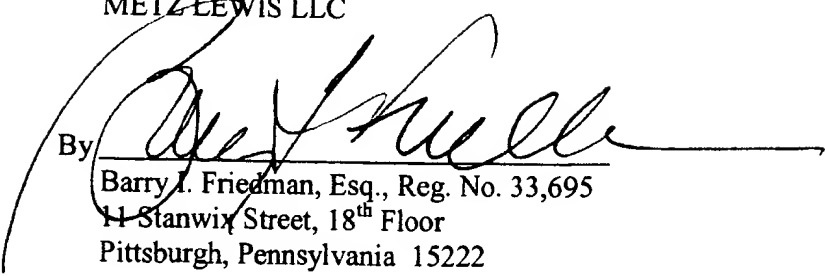
Appeal - Application Ser. No. 09/595,660

Signature

Respectfully submitted,

METZ LEWIS LLC

By



Barry J. Friedman, Esq., Reg. No. 33,695  
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Pittsburgh, Pennsylvania 15222

Attorneys for Applicant

(412) 918-1100

**Exhibit C**  
**Appeal - Application Ser. No. 09/595,660**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit 3626	:	PATENT APPLICATION
Examiner Natalie Pass	:	
In re application of	:	<b>SYSTEM FOR MONITORING</b>
TELLER, ET AL.	:	<b>HEALTH, WELLNESS AND</b>
	:	<b>FITNESS</b>
Serial No. 09/595,660	:	
Filed June 16, 2000	:	

**REVISED AMENDMENT**

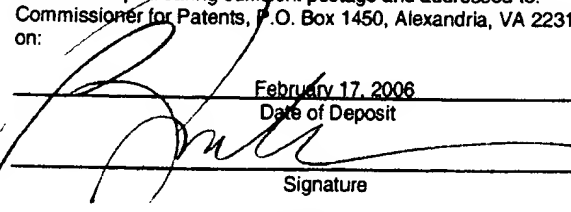
Pittsburgh, Pennsylvania 15222

February 17, 2006

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant respectfully submits this Revised Amendment in response to the Office Action mailed on October 13, 2005. Concurrently herewith, Applicants have filed a Request for Continued Examination under 37 C.F.R. §1.114.

I, Barry I. Friedman, in accordance with 37 C.F.R. 1.8(a), hereby certify that I have a reasonable basis to expect that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope bearing sufficient postage and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:	
	February 17, 2006 Date of Deposit
Signature	

**Exhibit C**

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**AMENDMENTS TO THE CLAIMS**

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
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12. (Canceled)
13. (Canceled)
14. (Canceled)
15. (Canceled)
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)
22. (Canceled)

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23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled)
27. (Canceled)
28. (Canceled)
29. (Canceled)
30. (Canceled)
31. (Canceled)
32. (Canceled)
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34. (Canceled)
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42. (Canceled)
43. (Canceled)
44. (Canceled)
45. (Canceled)

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46. (Canceled)
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90. (Canceled)
91. (Canceled)

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92. (Canceled)

93. (Canceled)

94. (Canceled)

95. (Canceled)

96. (Canceled)

97. (Canceled)

98. (Canceled)

99. (Canceled)

100. (Canceled)

101. (Canceled)

102. (Canceled)

103. (Canceled)

104. (Currently Amended) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal, said individual wearing a wearable physiological monitoring device, the method comprising:

establishing said physiological status goal according to certain ~~selectable~~ physiological parameters of said individual;

generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device;

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device;

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receiving data related to the life activities of said individual;

calculating, from said first and second parameters, quantitative status information

indicative of the relative degree of achievement of said individual's performance with relation to

said physiological status goal ~~from said data indicative of said first and second parameters;~~

generating individual status information relating to the status of said individual from said

life activities data; and

communicating to a recipient said ~~determined~~ calculated quantitative status information

regarding said individual and said individual status information.

wherein said first and second parameters are produced by at least one of said individual's

body and the environment adjacent said individual's body.

105. (Previously Presented) A method according to claim 104, wherein said physiological status goal comprises a plurality of categories.

106. (Previously Presented) A method according to claim 105, wherein said quantitative status information is determined and provided with respect to each of said categories.

107. (Previously Presented) A method according to claim 106, wherein said categories relate to two or more of nutrition, activity level, mind centering, sleep, and daily activities.

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108. (Currently Amended) A method according to claim 104, wherein said ~~providing~~ communicating step comprises providing at least a portion of said quantitative status information in graphical form.

109. (Currently Amended) A method according to claim 104, wherein at least two sensors selected from the group consisting of physiological sensors and contextual sensors are in electrical communication with at least one of said wearable device and said second device, said sensors generating said data indicative of ~~at least~~ a first parameter and a said data indicative of a second parameter of said individual.

110. (Currently Amended) A method according to claim 109, ~~said generating step~~ further comprising generating derived data based on said data indicative of ~~at least~~ a first parameter and said data indicative of a second parameter of said individual, ~~said one or more measured parameters including said derived data~~.

111. (Currently Amended) A method according to claim ~~109~~ 110, ~~said data indicative of one or more measured parameters including said data indicative of at least a first parameter and a second parameter, said using step further comprising generating derived data based on said data indicative of at least a first parameter and a second parameter and~~ further comprising the additional step of using at least said derived data to determine said quantitative status information.

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112. (Previously Presented) A method according to claim 110, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

113. (Currently Amended) A method according to claim 110, said at least two sensors being two of a body motion sensors adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of ~~at least~~ a first parameter and said data indicative of a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

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114. (Previously Presented) A method according to claim 110, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

115 (Previously Presented) A method according to claim 113, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

116. (Currently Amended) A method according to claim ~~115~~109, said at least two sensors comprising at least one further including said skin conductance sensor, ~~wherein said data relating to calories burned is generated using at least said data indicative of motion, said data indicative of heat flow and said~~ generating data indicative of the resistance of said individual's skin to electric current.

117. (Previously Presented) A method according to claim 111, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

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118. (Currently Amended) A method according to claim 111, said at least two sensors being two of a body motion sensors adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of ~~at least~~ a first parameter and said data indicative of a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

119. (Previously Presented) A method according to claim 111, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

120. (Previously Presented) A method according to claim 118, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

121. (Currently Amendment) A method according to claim ~~120~~ 118, wherein one of at  
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least said at least two sensors comprising said skin conductance sensor;  
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~~wherein said data relating to calories burned is generated using at least said data indicative of motion, said data indicative of heat flow and said which generates data indicative of the~~  
resistance of said individual's skin to electric current.

122. (Currently Amended) A method according to claim 104, further comprising the step of aggregating at least one of said data indicative of a first parameter of said individual, said data indicative of a second parameter of said individual, and said quantitative status information ~~one or more measured parameters~~ with data collected from a plurality of individuals to create aggregate data.

123. (Previously Presented) A method according to claim 122, further comprising the step of creating reports based on said aggregate data.

124. (Currently Amended) A method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal, said individual wearing a wearable physiological monitoring device, the method comprising:

establishing said physiological status goal according to certain ~~selectable~~  
physiological parameters of said individual;

generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device;

generating data indicative of a second parameter of said individual with at least  
**Exhibit C**  
one of said wearable device and a second device,  
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calculating, directly from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal ~~from said data indicative of said first and second parameters~~; and

communicating to a recipient said ~~determined~~ calculated quantitative status information indicative of a suggested change in said individual's performance to assist said individual in the achievement of said physiological status goal,

wherein said first and second parameters are produced by at least one of said individual's body and the environment adjacent said individual's body.

125. (Currently Amended) A method according to claim 124, wherein at least two sensors selected from the group consisting of physiological sensors and contextual sensors are in electrical communication with at least one of said wearable device and said second device, said sensors generating said data indicative of ~~at least a first parameter~~ and said data indicative of a second parameter of said individual.

126. (Currently Amended) A method according to claim 125, ~~said generating step~~ further comprising generating derived data based on said data indicative of ~~at least a first~~ parameter and said data indicative of a second parameter, ~~said one or more measured parameters including said derived data.~~

127. (Currently Amended) A method according to claim ~~125~~ 126, ~~said data indicative of~~  
**Exhibit C**  
~~one or more measured parameters including said data indicative of at least a first parameter and a~~

~~second parameter, said using step further comprising generating derived data based on said data~~  
~~indicative of at least a first parameter and a second parameter and further comprising the step of~~  
using at least said derived data to determine said ~~relative degree of achievement~~quantitative  
status data.

128. (Canceled)

129. (Canceled)

130. (Canceled)

131. (Canceled)

132. (Canceled)

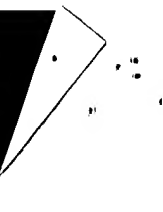
133. (Canceled)

134. (Canceled)

135. (Canceled)

136. (Canceled)

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137. (Previously Presented) A method according to claim 126, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

138. (Currently Amended) A method according to claim 126, said at least two sensors being two of a body motion sensors adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of ~~at least~~ a first parameter and said data indicative of a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

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139. (Previously Presented) A method according to claim 126, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

140. (Previously Presented) A method according to claim 138, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

141. (Currently Amended) A method according to claim ~~140~~138, said at least two sensors ~~further including said comprising a body motion sensor and~~ skin conductance sensor, wherein said derived data comprises data relating to calories burned, wherein said data relating to calories burned is generated using at least said data indicative of motion, ~~said data indicative of heat flow~~ and said data indicative of resistance of said individual's skin to electric current.

142. (Previously Presented) A method according to claim 127, said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors.

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143. (Currently Amended) A method according to claim 127, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, said data indicative of ~~at least a first parameter and~~ said data indicative of a second parameter comprising at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin.

144. (Previously Presented) A method according to claim 127, wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level.

145. (Previously Presented) A method according to claim 143, said at least two sensors being said body motion sensor and said heat flux sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow.

146. (Currently Amended) A method according to claim ~~145~~ 143, said at least two sensors further including ~~an~~ Appearing Application Ser. No. 09/595,660 body motion sensor,

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wherein said derived data comprises data related to calories burned, and wherein said data relating to calories burned is generated using at least said data indicative of motion, ~~said data indicative of heat flow~~ and said data indicative of resistance of said individual's skin to electric current.

147. (Previously Presented) A method according to claim 104, said wearable physiological monitoring device being part of an armband.

148. (Previously Presented) A method according to claim 104, said wearable physiological monitoring device being part of a garment.

149. (Currently Amended) A method according to claim 104, said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, an impedance sensor adapted to generate data indicative of an impedance of said individual's body, and a pulse rate sensor adapted to generate data indicative of a pulse rate of said individual, said physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data

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indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate when worn by said individual; said data indicative of ~~one or more measured parameters~~ a first parameter and said data indicative of a second parameter being generated using said at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate.

150. (Previously Presented) A method according to claim 124, said wearable physiological monitoring device being part of an armband.

151. (Previously Presented) A method according to claim 124, said wearable physiological monitoring device being part of a garment.

152. (Currently Amended) A method according to claim 124, said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, a temperature sensor adapted to generate data indicative of a temperature of said individual's skin, an impedance sensor adapted to generate data indicative of an impedance of said individual's body, and a pulse rate sensor adapted to generate data indicative of a pulse rate of said

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individual, said physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate when worn by said individual; said data indicative of ~~one or more measured parameters~~ a first parameter and said data indicative of a second parameter being generated using said at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate.

153. (Canceled)

154. (Canceled)

155. (Canceled)

156. (Canceled)

157. (Canceled)

159. (Canceled)

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160. (Canceled)

161. (Previously Presented) A method according to claim 113, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

162. (Previously Presented) A method according to claim 118, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

163. (Previously Presented) A method according to claim 138, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

164. (Previously Presented) A method according to claim 143, said at least two sensors being said body motion sensor and said body potential sensor, wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats.

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165. (Canceled) **Appeal - Application Ser. No. 09/595,660**

166. (Canceled)

167. (Currently Amended) A method according to claim 104, further comprising receiving sensor data from one or more sensor devices, said one or more sensor devices measuring said sensor data from the individual, and using said sensor data in addition to said data indicative of ~~one or more measured parameters~~ a first parameter and said data indicative of a second parameter to ~~determine~~ calculate said quantitative status information.

168. (Canceled)

169. (Canceled)

170. (Canceled)

171. (Currently Amended) A method according to claim 104, further comprising the step of generating derived data from at least one of said data indicative of ~~at least one of said a~~ first parameter and said data indicative of a ~~and~~ second parameters, wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.

172. (Currently Amended) A method according to claim 124, further comprising the step of generating derived data from at least one of said data indicative of ~~at least one of said a~~

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first parameter and said data indicative of a and second parameters, wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.

173. (Canceled)

174. (Canceled)

175. (New) A method according to Claim 104 wherein said step of calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal further comprises using said life activities data in said calculation.

176. (New) A method according to Claim 124 further comprising the step of receiving data related to said individual's life activities, and wherein said step of calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal further comprises using said life activities data in said calculation.

177. (New) A method according to Claim 104 further comprising the step of commutating said data indicative of said first and second parameters to a central monitoring unit, and wherein said step of calculating, from said first and second parameters, quantitative status

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information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is performed by said central monitoring unit.

178. (New) A method according to Claim 124 further comprising the step of commutating said data indicative of said first and second parameters to a central monitoring unit, and wherein said step of calculating, from said first and second parameters, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is performed by said central monitoring unit.

179. (New) A method according to claim 104, said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of data indicative of resistance of said individual's skin to electric current, data indicative of heat flow of said individual, data indicative said individual's brain activity, data indicative of a temperature of said individual's skin, said data indicative of impedance of said individual, data indicative of said individual's respiration, data indicative of said individual's body conductance, data indicative of said individual's body resistance, data indicative of said individual's body potential, data indicative of said individual's blood pressure, data indicative of said individual's oxygen consumption, data indicative of said individual's body chemistry sensors, and indicative of said individual's body position sensors.

180. (New) A method according to claim 124, said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of data indicative of resistance of said individual, data indicative of heat flow of said

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individual, data indicative said individual's brain activity, data indicative of a temperature of said individual's skin, said data indicative of impedance of said individual, data indicative of said individual's respiration, data indicative of said individual's body conductance, data indicative of said individual's body resistance, data indicative of said individual's body potential, data indicative of said individual's blood pressure, data indicative of said individual's oxygen consumption, data indicative of said individual's body chemistry sensors, and indicative of said individual's body position sensors.

181. (New) A method according to claim 104 wherein said life activities are manually entered.

182. (New) A method according to claim 124 wherein said life activities are manually entered.

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## **REMARKS**

Reconsideration of the present application in view of the above amendments and the following remarks is respectfully requested.

### **I. Status of the Claims**

By way of this amendment, Applicants are canceling claims 153-160, 165, 166, 168-170, 173, and 174. Applicants submit that the canceled claims are patentable; however, because the canceled claims somewhat overlap with the subject matter of amended independent Claims 104 and 124, the Applicants have chosen to cancel independent claims 153, 157 and all their dependent claims in an effort to simplify examination. Applicants have added new dependent Claims 175-182. Applicants have amended independent Claims 104 and 124 and many of the dependent claims, which for most cases, was to clarify the antecedent basis of the terms utilized. Thus, Claims 104-127, 137-152, 161-164, 167, 171, 172, and 175-182 are pending in this application.

### **II. Interview with Examiner**

Applicants have received the Interview Summary of January 13, 2006. The following is Applicants' summary of substance of a telephonic interview conducted on December 29, 2005 ("Interview"). Applicants thank the Examiners for the courtesy of the Interview. The focus of the discussion during the Interview was independent claims 104, 124, 153, and 157. These were discussed in relation to Brown, United States Patent No. 5,951,300, ("Brown300") and United States Patent No. 5,941,837 to Amano et al. ("Amano"). Consistent with a previous interview in  
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May of 2005, the Examiners *again agreed* that Brown300 in combination with Amano did not render the invention obvious because of various deficiencies of Brown300. As was stated in the May 2005 interview, the teachings of Brown300 are inapplicable to the instant claims. The Applicants then discussed distinctions between the claimed invention and the teachings of Amano. The Examiners invited the Applicants to discuss those distinctions in the instant response. Those distinctions resulted in the amendments herein to independent Claims 104 and 124. Finally, the Examiners indicated that they would be able to treat this application in an expedited manner because of the fact that it has been pending for over five years.

#### **Claim Rejection – 35 U.S.C. § 112**

The Examiner has rejected Claim 174 under 35 U.S.C. § 112, second paragraph. Claim 174 has been canceled thus the rejection is rendered moot.

#### **Claim Rejection – 35 U.S.C. §103**

During the Interview, the issues of patentability were narrowed to a discussion of how the claimed invention was patentable over Amano. The Applicants will discuss the patentable distinctions in light of the two independent claims pending. Claims 104 and 124 have each been amended to recite the following step:

calculating, *from said first and second parameters*, quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal.

Claim 104 now recites the additional steps of receiving life activities data of said individual, and generating individual status data from said life activities data. Support for this

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amendment can be found throughout the Specification, and specifically at Page 4, lines 3-4, and pages 14-15. Further, Claim 104 has been amended to recite a communicating step which is as follows: communicating to a recipient said calculated quantitative status information regarding said individual and said individual status information. Support for this amendment can be found through the Specification, specifically at Pages 24-26. No new matter has been added by these amendments.

Claim 124 recites a different communicating step, as follows:

communicating to a recipient said calculated quantitative status information indicative of a suggested change in said individual's performance to assist said individual in the achievement of said physiological status goal.

Additionally, each of Claims 104 and 124 have further been amended to clarify that the first and second parameter are produced by at least one of said individual's body and the environment adjacent said individual's body. Support for this amendment is found throughout the Specification, specifically at Page 10, Lines 3-5, and Table 2.

Turning to the Amano reference, Applicants respectfully submit that Amano cannot support a rejection under 35 U.S.C. §§ 102 or 103 for the following reasons. With respect to Claim 104, Amano does not receive the life activities data of the individual as claimed. Since Amano does not disclose the reception of life activities data, Amano necessarily does not teach the claimed step of generating status information from said life activities data. As such, Amano neither anticipates the claimed invention nor renders it obvious. Brown300 cannot ameliorate the deficiencies of Amano as a reference, since, as successfully argued several times in this application's history, Brown300 does not teach communicating any type of quantitative status information or other status information to a recipient. Brown300 merely generates a criticality

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index *which is not communicated to a recipient nor is it communicable to the recipient*. For a full discussion of Brown300, the Applicants respectfully refer the Examiner to their arguments in this regard contained in prior responses to Office Actions, the prior two interviews, and the Interview summary.

With respect to both Claims 104 and 124, each claim requires the calculation of quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal. As discussed in the Interview, the Applicants have amended the claims to make clear that the quantitative status information must be calculated from *two parameters* obtained by the system. In that regard, examples of the claimed "parameters" can be seen in Table 2 on page 10 of the Specification. Applicants have further amended the claim to clarify that the two parameters must be produced by at least one of said individual's body and the environment adjacent said individual's body.

The Amano reference discloses a device and method in which the information or feedback given to the user is an indication of their circulation status, based upon an indicator. In nearly every instance, Amano's indicator is merely obtained from *one parameter only*: the waveforms of a fingertip plethysmogram. While Amano does disclose an accelerometer or other body movement detection means, the accelerometer is merely utilized to detect time periods of exercise, or instances where the user's movement will prohibit the accurate detection of the pulse wave form. See Amano, Col. 7, lines 42-50; Col. 19, lines 41-46. Further evidence of Amano's focus on one parameter is Amano's "Basic Theory Employed in the Preferred Embodiments", which involves the analysis of acceleration pulse waveforms. See Amano, Col. 12. The following are examples of Amano's teachings:

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- Figure 2A – Health status information, e.g., good health state, health state beginning to deteriorate, and health state insufficient, are all determined by an analysis of only one parameter: the pulse waveform.
- The invention “[comprises] a pulse wave measuring means for measuring the user’s pulse waveforms, a pulse wave measurement directive detection means which detects a directive by the user to measure pulse waves, and a calculating means which obtains an indicator showing the state of circulation in the user from the pulse waveform during the time that a plethysmogram measurement directive is being output, and a notifying means which notifies the user of the aforementioned indicator.” Amano, Col. 6, lines 18-26. Again, the pulse waveform is the only parameter used in the calculation.
- “CPU 1 checks whether or not the exercise intensity calculated from the measured pulse rate using formula (1) is outside the range determined by the aforementioned upper and lower limit values for exercise intensity. If exercise intensity exceeds the upper limit value, then CPU guides the user to exercise a bit more moderately...” Amano, Col. 21, lines 27-34. Note that only measured pulse rate is used in the determination of exercise intensity and in formula (1) in Col. 21, lines 16-20.

Thus, Amano does not teach calculating, *from said first and second parameters*, quantitative status information indicative of the relative degree of achievement of said individual’s performance with relation to said physiological status goal.

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Further, Applicants submit that the Amano accelerometer does not generate data indicative of a second parameter, wherein said parameter is produced by the individual's body or the environment surrounding the individual as claimed. Referring to the parameters of the claimed invention exemplified in Table 2 (in the "Data Used" column), it can be seen that all of the parameters are produced by at least one of said individual's body and the environment adjacent said individual's body, consistent with the requirements of the claims. In contrast to the claimed invention, Amano is used primarily to detect exercise duration. See e.g., Amano, Col. 20, lines 36-45. Duration, i.e., time, is not a parameter produced by at least one of said individual's body and the environment adjacent said individual's body as claimed. Duration is independent of the physiological characteristics of the individual. Moreover, Amano simply uses an accelerometer in this case to automate what otherwise would be a manual function, i.e., the starting and stopping of a clock. Amano teaches that when the accelerometer detects a force above a certain threshold, the accelerometer activates a clock. The clock stops when the force goes below the threshold. Indeed, the accelerometer's mere automation of the "clock" function is demonstrated by Amano's description of "Embodiment 3" in which there is no accelerometer and the user is provided with means ... "to himself [determine] whether or not he is in a state of repose..." Amano, Col. 27, line 17 to Col. 28, line 12.

There is a brief disclosure in Amano with respect to using the accelerometer to measure body movement rather than simply exercise duration. See Amano, Col. 30, lines 45-54. Amano discloses that the body movement data is used to correct the amplitude ratio of the pulse wave form. See Amano, Col. 30, lines 50-54. Yet, such a teaching still does not anticipate the claimed invention or render the claimed invention obvious. This is because Amano's "corrected amplitude ratio" is not "quantitative status information indicative of the relative degree of

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achievement of said individual's performance with relation to said physiological status goal" as required by the claims. Further, and with respect to Claim 124, there is no teaching that Amano's corrected amplitude ratio is "indicative of a suggested change in said individual's performance to assist said individual in the achievement of said physiological status goal" as claimed.

Accordingly, Claims 104 and 124, and all claims that depend thereon, are not anticipated or rendered obvious by Amano. Therefore, Applicants respectfully request Claims 104 and 124, and all claims that depend thereon, are in condition for allowance.

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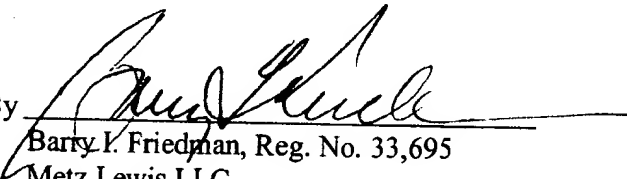
### CONCLUSION

In light of the foregoing, Claims 104-127, 137-152, 161-164, 167, 171, 172, and 175-180 are in condition for allowance. Reconsideration is requested at an early date.

No additional fee is believed to be required to file this Revised Amendment. Should a fee be required, authorization is given to charge Deposit Account No. 50-0525 for the appropriate filing fee. A duplicate of this authorization is enclosed.

Respectfully submitted,

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By   
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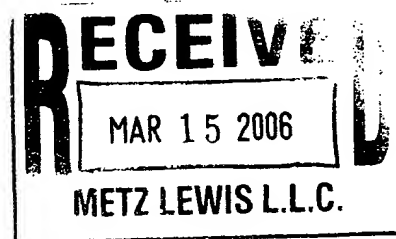
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09/595,660	06/16/2000	Eric Teller	1148/015	2830
23861	7590	03/13/2006	EXAMINER	
METZ LEWIS, LLC 11 STANWIX STREET 18TH FLOOR PITTSBURGH, PA 15222			PASS, NATALIE	
			ART UNIT	PAPER NUMBER
			3626	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



**Exhibit D**  
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# Office Action Summary

Application No.

09/595,660

Applicant(s)

TELLER ET AL.

Examiner

Natalie A. Pass

Art Unit

3626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

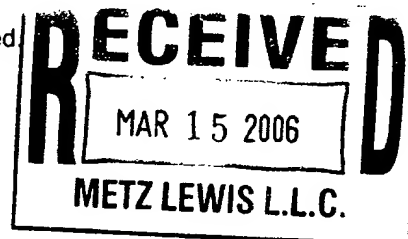
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 Feb.06 & 21 Feb.06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 104-127,137-152,161-164,167,171,172 and 175-182 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 104-127,137-152,161-164,167,171,172 and 175-182 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.



## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-893)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Exhibit D

Appeal - Application Serial No. 09/595,660



## DETAILED ACTION

### *Notice to Applicant*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 21 February 2006 and 16 February 2006 have been entered. As the amendment filed 21 February 2006 was to correct and apparently replace the submission filed 16 February 2006, which had not yet been examined, grounds of rejection for the pending claims and response to arguments are presented in the instant application, as set forth in detail below, in reply to the claims and arguments appearing in the amendment filed 21 February 2006.

2. This communication is in response to the Request for Continued Examination and amendment filed 21 February 2006. Claims 1-103, 128-136, 153-160, 165-166, 168-170, 173-174 have been cancelled. Claims 104, 108-111, 113, 116, 118, 121, 122, 124-127, 138, 141, 143, 146, 149, 152, 167, 171-172 have been amended. Claims 175-182 have been newly added. Claims 104-127, 137-152, 161-164, 167, 171-172, 175-182 remain pending.

### *Claim Rejections - 35 USC § 112*

3. The rejection of claim 174 under the second paragraph of 35 U.S.C. 112 is hereby withdrawn due to the amendment filed on 21 February 2006.

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***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 104-121, 124-127, 137-152, 161-164, 167, 171-172, 175-182 are rejected under 35 U.S.C. 102(e) as being anticipated by Mault, et al., U.S. Patent Number 6, 790, 178.

(A) Claim 104 has been amended to recite the limitations of

- "receiving data related to the life activities of said individual" in line 11;
- "generating individual status information relating to the status of said individual from said life activities data" in lines 15-16; and

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- "wherein said first and second parameters are produced by at least one of said individual's body and the environment adjacent said individual's body" in lines 19-20.

As per newly amended claim 104, Mault teaches a method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal, said individual wearing a wearable physiological monitoring device the method comprising:

establishing said physiological status goal according to certain physiological parameters of said individual (Mault; column 6, line 61 to column 7, line 11);

generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device (Mault; column 5, lines 56-65, column 6, lines 14-29);

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device (Mault; column 5, lines 56-65, column 6, lines 14-29);

receiving data related to the life activities of said individual (Mault; column 13, lines 40-42, column 20, lines 10-36);

calculating, from said first and second parameters, quantitative status information indicative of the "how the person's performance compares to their goals" (reads on "relative degree of achievement of said individual's performance with relation to said physiological status goal" (Mault; column 6, line 61 to column 7, line 11); Examiner interprets "measure their

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performance” to be a form of “calculating, from said first and second parameters, quantitative status information;”

generating individual status information relating to the status of said individual from said life activities data (Mault; column 12 lines 13-16, column 20, lines 55-67); and

communicating to a recipient said “feedback” (reads on “calculated quantitative status information regarding said individual and said individual status information” (Mault; column 7, lines 23-24),

wherein said first and second parameters are produced by at least one of said individual’s body and the environment adjacent said individual’s body (Mault; column 5, lines 56-65, column 6, lines 14-29, column 12, lines 22-24).

(B) Claim 124 has been amended to recite the limitations of

- “wherein said first and second parameters are produced by at least one of said individual’s body and the environment adjacent said individual’s body” in lines 18-19.

As per newly amended claim 124, Mault teaches a method for assisting an individual to monitor, control and modify certain aspects of the individual's physiological status according to a preset physiological status goal, said individual wearing a wearable physiological monitoring device the method comprising:

establishing said physiological status goal according to certain physiological parameters of said individual (Mault; column 6, line 61, column 7, line 11);

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generating data with said wearable device, said generated data indicative of a first parameter of said individual wearing said wearable physiological monitoring device (Mault; column 5, lines 56-65, column 6, lines 14-29);

generating data indicative of a second parameter of said individual with at least one of said wearable device and a second device (Mault; column 5, lines 56-65, column 6, lines 14-29);

calculating, directly from said first and second parameters, quantitative status information indicative of the “how the person’s performance compares to their goals” (reads on “the relative degree of achievement of said individual's performance with relation to said physiological status goal” (Mault; column 6, line 61 to column 7, line 11); Examiner interprets “measure their performance” to be a form “of calculating, directly from said first and second parameters, quantitative status information;” and

communicating to a recipient said calculated quantitative status information indicative of a suggested change in said individual’s performance to assist said individual in the achievement of said physiological status goal (Mault; column 6, line 61 to column 7, line 9), Examiner interprets Mault’s teaching of “the software may then prompt the user ... walk or run a certain distance” to be a form of “communicating to a recipient said calculated quantitative status information,”

wherein said first and second parameters are produced by at least one of said individual’s body and the environment adjacent said individual’s body (Mault; column 5, lines 56-65, column 6, lines 14-29, column 12, lines 22-24).

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(C) As per claims 105-108, Mault teaches a method as analyzed and discussed in claim 104 above

wherein said physiological status goal comprises a plurality of categories (Mault; column 6, line 35 to column 7, line 26);

wherein said quantitative status information is determined and provided with respect to each of said categories (Mault; column 6, line 35 to column 7, line 26);

wherein said categories relate to two or more of nutrition or diet, activity level or exercise, mind centering or psychological parameters, sleep, and daily activities (Mault; column 6, line 35 to column 7, line 26, column 13, lines 40-42, column 20, lines 10-36); and

wherein said communicating step comprises providing at least a portion of said quantitative status information in graphical form (Mault; Figure 12, column 7, lines 23-24, column 11, lines 9-11).

(D) As per claims 109-113, 117-118, 125-127, 137-138, 142-143, Mault teaches a method as analyzed and discussed in claims 104 and 124 above

wherein at least two sensors selected from the group consisting of physiological sensors and contextual sensors are in electrical communication with at least one of said wearable device and said second device, said sensors generating said data indicative of a first parameter and said data indicative of a second parameter of said individual (Mault; column 4, lines 48-51, column 6, lines 14-29);

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further comprising generating derived data based on said data indicative of a first parameter and said data indicative of a second parameter of said individual (Mault; column 12, lines 13-24); and

further comprising the additional step of using at least said derived data to determine said quantitative status information (Mault; column 6, line 61 to column 7, line 11, column 12, lines 13-24); Examiner interprets “the PDA stores exercise information received from the pedometer module and calculates various exercise parameters such as calories burned, distance covered, average speed, etc. The PDA may use this information for a variety of purposes, such as feedback to the user” (Mault; column 12, lines 14-19) together with Mault’s teachings of “[t]he person uses a pedometer module ... [...] ... [t]his data is ... [...]... used by the software to determine how the person's performance compares to their goals” (Mault; column 7, lines 1-6) to be a form of “using at least said derived data to determine said quantitative status information;”

said at least two sensors being chosen from the group consisting of respiration sensors, temperature sensors, heat flux sensors, body conductance sensors, body resistance sensors, body potential sensors, brain activity sensors, blood pressure sensors, body impedance sensors, body motion sensors, oxygen consumption sensors, body chemistry sensors, body position sensors, body pressure sensors, light absorption sensors, piezoelectric sensors, electrochemical sensors, strain gauges, and optical sensors (Mault; column 11, lines 52-57, column 17, lines 44-47); and

said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion, a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electricity, and a heat flux sensor adapted to generate data

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indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, and a temperature sensor adapted to generate data indicative of a temperature of said individual's skin said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of said data indicative of motion said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity and said data indicative of a temperature of said individual's skin (Mault; column 11, lines 52-57, column 17, lines 44-47).

(E) As per claims 114-116, 119-121, 139-141, 144-148, 150-151, Mault teaches a method as analyzed and discussed in claims 104 and 124 above

wherein said derived data comprises data relating to at least one of activity level, sleep, nutrition, stress level and relaxation level (Mault; column 20, lines 24-25, 30-36);

said at least two sensors being said body motion sensor (Mault; column 11, lines 52-57, column 12, lines 14-16) and said "temperature sensor" (reads on "heat flux sensor") (Mault; column 20, lines 7-11), wherein said derived data and said one or more measured parameters comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heat flow (Mault; column 12, lines 14-16, column 20, lines 10-11);

said at least two sensors comprising at least one said skin conductance sensor, generating data indicative of the resistance of said individual's skin to electric current (Mault; column 15, lines 52-61);

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said at least two sensors comprising a body motion sensor (Mault; column 11, lines 52-57, column 12, lines 14-16) and skin conductance sensor (Mault; column 15, lines 52-61), wherein said derived data comprises data relating to calories burned, wherein said data relating to calories burned is generated using at least said data indicative of motion and said data indicative of resistance of said individual's skin to electric current (Mault; column 12, lines 14-16, column 15, line 52 to column 16, line 26, column 20, lines 7-11);

said wearable physiological monitoring device being part of an armband (Mault; column 17, lines 55-60); and

said wearable physiological monitoring device being part of a garment (Mault; column 17, lines 55-60).

(F) As per claims 149, 152, 161-164, 167, 171-172 Mault teaches a method as analyzed and discussed in claims 104 and 124 above

said wearable physiological monitoring device having at least two sensors, said at least two sensors being two of a body motion sensor adapted to generate data indicative of motion (Mault; column 11, lines 52-57, column 12, lines 14-16), a skin conductance sensor adapted to generate data indicative of the resistance of said individual's skin to electric current, a heat flux sensor adapted to generate data indicative of heat flow, a body potential sensor adapted to generate data indicative of heart beats or muscle or brain activity of said individual, a temperature sensor adapted to generate data indicative of a temperature of said individual's skin (Mault; column 17, lines 44-47), an impedance sensor adapted to generate data indicative of an impedance of said individual's body, and a pulse rate sensor adapted to generate data indicative

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of a pulse rate of said individual (Mault; column 19, line 62 to column 20, line 7), said physiological monitoring device generating at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate when worn by said individual; said data indicative of a first parameter and said data indicative of a second parameter being generated using said at least two of said data indicative of motion, said data indicative of resistance of said individual's skin to electric current, said data indicative of heat flow, said data indicative of heart beats or muscle or brain activity, said data indicative of a temperature of said individual's skin, said data indicative of impedance, and said data indicative of pulse rate (Mault; column 11, lines 52-57, column 12, lines 14-16, column 17, lines 44-47, column 19, line 62 to column 20, line 7);

said at least two sensors being said body motion sensor (Mault; column 11, lines 52-57, column 12, lines 14-16) and said body potential sensor (Mault; column 6, lines 14-29, column 13, lines 57-63), wherein said derived data comprises data relating to calories burned and is generated using at least said data indicative of motion and said data indicative of heart beats (Mault; column 12, lines 14-16, column 14, lines 50-67, column 20, lines 7-11);

further comprising receiving sensor data from one or more sensor devices, said one or more sensor devices measuring said sensor data from the individual, and using said sensor data in addition to said data indicative of a first parameter and said data indicative of a second parameter to calculate said quantitative status information (Mault; column 6, line 61 to column 7, line 11, column 12 lines 13-24, column 20, lines 55-67); Examiner interprets "the PDA stores

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exercise information received from the pedometer module and calculates various exercise parameters such as calories burned, distance covered, average speed, etc. The PDA may use this information for a variety of purposes, such as feedback to the user” (Mault; column 12, lines 14-19) together with Mault’s teachings of “[t]he person uses a pedometer module ... [...] ... [t]his data is ... [...]... used by the software to determine how the person's performance compares to their goals” (Mault; column 7, lines 1-6) to be a form of “using said sensor data in addition to said data indicative of a first parameter and said data indicative of a second parameter to calculate said quantitative status information;”

further comprising the step of generating “various exercise parameters such as calories burned” (reads on “derived data”) from “exercise information received from the pedometer” (reads on “at least one of said data indicative of a first parameter and said data indicative of a second parameter”) (Mault; column 12, lines 14-19), wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data; Examiner interprets Mault’s teachings of “[t]he person uses a pedometer module ... [...] ... [t]his data is ... [...]... used by the software to determine how the person's performance compares to their goals” (Mault; column 7, lines 1-6) to be a form of “wherein said quantitative status information indicative of the relative degree of achievement of said individual's performance with relation to said physiological status goal is calculated from at least said derived data.”

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(G) As per newly added claims 175-182, Mault teaches a method as analyzed and discussed in claims 104 and 124 above

wherein said step of calculating, from said first and second parameters, quantitative status information indicative of the “how the person’s performance compares to their goals” (reads on “relative degree of achievement of said individual's performance with relation to said physiological status goal” (Mault; column 6, line 61 to column 7, line 11) further comprises using said life activities data in said calculation (Mault; column 12 lines 13-16, column 20, lines 29-36, 55-67); Examiner interprets “measure their performance” to be a form of “calculating, from said first and second parameters, quantitative status information;”

further comprising the step of receiving data related to said individual’s life activities of (Mault; column 13, lines 40-42, column 20, lines 10-36) and wherein said step of calculating, from said first and second parameters, quantitative status information indicative of the “how the person’s performance compares to their goals” (reads on “relative degree of achievement of said individual's performance with relation to said physiological status goal” (Mault; column 6, line 61 to column 7, line 11) further comprises using said life activities data in said calculation (Mault; column 12 lines 13-16, column 20, lines 29-36, 55-67); Examiner interprets “measure their performance” to be a form of “calculating, from said first and second parameters, quantitative status information;”

further comprising the step of transmitting or commutating said data indicative of said first and second parameters to a “remote server” (reads on “central monitoring unit”), and wherein said step of “analyzing the data received” (reads on “calculating, from said first and second parameters”), quantitative status information indicative of the “how the person’s

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performance compares to their goals” (reads on “relative degree of achievement of said individual's performance with relation to said physiological status goal” (Mault; column 6, line 61 to column 7, line 11) is performed by said central monitoring unit (Mault; column 7, lines 13-20); Examiner interprets Mault's teachings of “[t]he remote server may store and analyze the data received from the PDA and provide feedback based on the information” to teach “is performed by said central monitoring unit” and Examiner interprets Applicant's recital of “commutating” to mean “transmitting,” and not to mean reversing of mathematical operations or forming a unidirectional current in a motor, standard definitions of this term, which do not appear to fit logically into the context of the claim;

said data indicative of a first parameter and said data indicative of a second parameter comprising at least two of data indicative of resistance of said individual's skin to electric current, data indicative of heat flow of said individual, data indicative said individual's brain activity, data indicative of a temperature of said individual's skin, data indicative of impedance of said individual, data indicative of said individual's respiration, data indicative of said individual's body conductance, data indicative of said individual's body resistance, data indicative of said individual's body potential, data indicative of said individual's blood pressure, data indicative of said individual's oxygen consumption, data indicative of said individual's body chemistry sensors, data indicative of said individual's body position sensors (Mault; column 4, lines 15-21, column 6, lines 14-29, column 19, line 62 to column 20, line 7); and

wherein said life activities are manually entered (Mault; Figure 13, Item 136, column 15, lines 26-27, column 16, lines 19-22).

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***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 122-123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mault, et al., U.S. Patent Number 6, 790, 178 as applied to claim 104 above, and further in view of Brown et al, U.S. Patent Number 5, 913, 310.

(A) As per claims 122-123, Mault teaches a method as analyzed and discussed in claim 104 above.

Mault fails to explicitly disclose a method further comprising the steps of aggregating at least one of said data indicative of a first parameter of said individual, said data indicative of a second parameter of said individual, and said quantitative status information with data collected from a plurality of individuals to create aggregate data; and

further comprising the step of creating reports based on said aggregate data.

However, the above features are well-known in the art, as evidenced by Brown.

In particular, Brown teaches a method further comprising the step of aggregating at least one of said data indicative of a first parameter of said individual, said data indicative of a second parameter of said individual, and said quantitative status information with data collected from a

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plurality of individuals to create aggregate data (Brown; column 26, lines 45-50, column 20, lines 35-45); and

further comprising the step of creating reports based on said aggregate data (Brown; column 20, lines 35-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Mault to include these limitations, as taught by Brown, with the motivations of statistically analyzing the data for use in epidemiological research (Brown; column 20, lines 35-45).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 104-127, 137-152, 161-164, 167, 171-172, 175-182 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. This is a continuation of applicant's earlier Application No. 09/595, 660. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks  
Washington D.C. 20231

**or faxed to:** (571) 273-8300.

For formal communications, please mark  
"EXPEDITED PROCEDURE".

For informal or draft communications, please label  
"PROPOSED" or "DRAFT" on the front page of the  
communication and do NOT sign the communication.

After Final communications should be labeled "Box AF."

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie A. Pass whose telephone number is (571) 272-6774. The examiner can normally be reached on Monday through Thursday from 9:00 AM to 6:30 PM. The examiner can also be reached on alternate Fridays.

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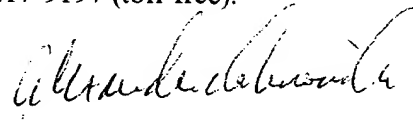
12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas, can be reached at (571) 272-6776. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (571) 272-3600. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Natalie A. Pass

March 4, 2006



ALEXANDER KALINOWSKI  
SUPERVISORY PATENT EXAMINER

# ACKNOWLEDGEMENT RECEIPT

Electronic Version 1.1

Stylesheet Version v1.1.1

## Title of Invention

SYSTEM FOR MONITORING HEALTH, WELLNESS AND FITNESS

Submission Type : Information Disclosure  
Statement

Application Number:

09/595660



EFS ID:

92607

Server Response:

Confirmation Code	Message
ISVR1	Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application
ICON1	2830
USPTOEFSNot	For assistance with e-filing a patent application, contact the Patent Electronic Business Center: Toll-Free Number:1(866) 217-9197 Website: <a href="http://www.uspto.gov/ebc/">http://www.uspto.gov/ebc/</a>

First Named Applicant: Eric Teller

Attorney Docket Number: 1148/015

Timestamp: 2005-09-13 14:42:03 EDT

From: US

File Listing:

Doc. Name	File Name	Size (Bytes)	Date Produced (yyyymmdd)
us-ids	ids-e-filing-usidst.xml	8497	2005-09-13
us-ids	us-ids.dtd	7763	2005-09-13
us-ids	us-ids.xsl	12026	2005-09-13
us-fee-sheet	ids-e-filing-usfees.xml	1540	2005-09-13
us-fee-sheet	us-fee-sheet.xsl	25930	2005-09-13
us-fee-sheet	us-fee-sheet.dtd	11968	2005-09-13
package-data	ids-e-filing-pkda.xml	2189	2005-09-13
package-data	package-data.dtd	27025	2005-09-13
package-data	us-package-data.xsl	19263	2005-09-13
Total files size		116201	

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Name:

cn=Barry I.  
Friedman,ou=Registered  
Attorneys,ou=Patent and  
Trademark

**Exhibit E**  
Office,ou=Department of  
Commerce,o=U.S.  
Government,c=US  
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17	5959611	1999-09-28	Smailagic et al.			
18	6053872	2000-04-25	Mohler			
19	6135107	2000-10-24	Mault			
20	6208900	2001-03-27	Ecker et al.			
21	6225980	2001-05-01	Weiss et al.			
22	6247647	2001-06-19	Courtney et al.			
23	6265978	2001-07-24	Atlas			
24	6315719	2001-11-13	Rode et al.			
25	6513532	2003-02-04	Mault et al.			
26	6527711	2003-03-04	Stivoric et al.			
27	6551251	2003-04-22	Zuckerwar et al.			
28	6553251	2003-04-22	Lahdesmaki			
29	6571200	2003-05-27	Mault			
30	6584344	2003-06-24	Hannula			
31	6595929	2003-07-22	Stivoric et al.			
32	6610012	2003-08-26	Mault			
33	6690959	2004-02-10	Thompson			
34	6734802	2004-05-11	Halleck et al.			
35	6755795	2004-06-29	Mammaropoulos et al.			
36	6790178	2004-09-14	Mault et al.			
37	6874127	2005-03-29	Newell et al.			

### US Published Applications

**Note:** Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
	1	20010029340	2001-10-11	Mault et al.			
	2	20010032059	2001-10-18	Kelly, Jr., et al.			
	3	20010044581	2001-11-22	Mault			
	4	20010049470	2001-12-06	Mault et al.			
	5	20020019296	2002-02-14	Freeman et al.			
	6	20020028995	2002-03-07	Mault			
	7	20020032386	2002-03-14	Sackner et al.			
	8	20020107450	2002-08-08	Ogura			
	9	20020111539	2002-08-15	Cosentino et al.			
	10	20020133378	2002-09-19	Mault et al.			
	11	20030069510	2003-04-10	Semler			
	12	20030055460	2003-03-20	Owen et al.			
	13	20030083559	2003-05-01	Thompson			

**Signature**

**Exhibit E**

**Appeal - Application Serial No. 09/595,660**

Examiner Name	Date